Phi Delta KAPPAN

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FIFTY-THIRD YEAR

VOLUME XXXX
NUMBER 2

November 1958

A JOURNAL FOR THE PROMOTION OF RESEARCH, SERVICE, AND LEADERSHIP IN EDUCATION

Phi Delta KAPPAN

VOLUME XXXX • NUMBER 2

Journal of Phi Delta Kappa, Professional Fraternity for Men in Education

For the promotion and improvement of free public education through a continuing interpretation of the ideals of research, service, and leadership

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JOHN R. ROWE, Educational Director, Encyclopedia Britannica, Inc., 425 North Michigan Avenue, Chicago 11, Ill.

ROY K. WILSON, Director, Press and Radio Relations, NEA, 1201 Sixteenth St., N.W., Washington 6, D. C.

Editorial and Business Staff

STANLEY ELAM, *Editor;* JOHN R. JONES, JR., *Business Manager*, Eighth St. and Union Ave., Bloomington, Ind.

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Entered as second-class matter at the post office at Spencer, Indiana, under the Act of August 24, 1912. ☆ Published monthly, October to June, inclusive, by Phi Delta Kappa, Inc., at Spencer, Indiana. Acceptance for mailing at a special rate of postage is provided for in the Act of February 28, 1925. ☆ Subscription rate, $4.00 per year. Single copies, while available, 50 cents each, from the Bloomington Office. ☆ Official statements of Phi Delta Kappa are so indicated. Other statements and articles are published as expressions of the personal views of the writers. ☆ Listed in *Education Index*, published by the H. W. Wilson Company, New York, N. Y. ☆ EDITORIAL OFFICE: Phi Delta Kappa, Eighth St. and Union Ave., Bloomington, Indiana. ☆ Member, Educational Press Association of America.

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"THE Great Debate on education now raging over the land may prove to be as important as the debate that preceded the adoption of the Constitution."

So intones the October *Reader's Digest* (domestic circulation 10,236,057, foreign 7,248,000), introducing Clifton Fadiman's *Holiday* article titled "The Mess in Education—Who Is Responsible?"

This wife-beating question is quickly answered by master-of-all-trades Fadiman. He is tactful and considerate. No specific demons for Clif. No Educationist Monopoly. Not even safely impersonal Progressive Education. It's that great white goat, the American public, that did the trick, as quick as one, two, three. John Q. wanted swimming pools, hot lunches, compulsory promotion, the abolishment of report cards. He got them. The schools "now turn out millions of happy, healthy illiterates."

Oddly enough, school men can agree with a good deal of what Fadiman says in his *Holiday* article. Their chief objection is that he has overdrawn the case. We have noticed in the past few years that commentators who actually go out and visit the schools before sitting down to write about them usually make a lot more sense than the men who depend over-much on intuition. For example, George Leonard, before writing his highly constructive *Look* articles, actually spent weeks and months prowling about classrooms across the U. S. So did Robert Shayon, who wrote the excellent lead article in *Saturday Review's* Sept. 13 "Frontiers of Learning" issue.

But the best illustration of the point we are making is probably the experience of James B. Conant, whose forthcoming report on the American high school could conceivably be as influential as any statement since the 1918 publication of the *Cardinal Principles of Secondary Education.*

Educators who were acquainted with Conant's views when he was a member of the Educational Policies Commission in the 1940's have been surprised and pleased to note not only a change in tone but a considerable change in his point of view in recent years. Conant has become an authority on both American and European secondary schools through visiting scores of them and talking with the men who run them. He has developed a good deal of respect for American high schools, not only as institutions unique in the world today, but as uniquely effective in achieving the tasks set for them. As a result, the Conant recommendations envisage no revolution in the goals of American secondary education, merely some changes in emphasis to meet change in a society that retains the basic goals of the world's most successful democracy.

This is one reason we are proud to present as the lead article in this issue a condensation, approved by the author, of Conant's recent address before the National School Boards Association.

We also offer an article from a critic outside the profession: Admiral Hyman Rickover. Rickover, as all good Americans know, "accomplished the most important piece of development in the history of the Navy."* Without doubt, he is a good scientist, a brilliant administrator, and a military man dedicated to the proposition that the more you sweat in peace the less you bleed in war. His conclusions about the weaknesses of American secondary education have been conditioned by—perhaps we should say intuited from—his experience in guiding a vast development program requiring of its leading personnel the very highest intelligence and the most devoted labor. Rickover's views—despite a hobby of reading history and philosophy—are restricted and perhaps warped by this experience. Nevertheless, he represents an important element among critics of education, he is sincere, and he is articulate. He deserves consideration.

The other articles in this issue are also pertinent to the Great Debate. We particularly recommend to you the blood-curdling piece by Max Rafferty (to be answered in December by Robert Havighurst), the provocative discussion of transfer of training by Clark Trow, the pioneering effort by Ralph Tyler to set up criteria for the admission of content to the high-school curriculum, the fascinating comments on high-school society by William Kvaraceus, the new view of talent expressed by Jacob Getzels, the profound discussion of Russian and American secondary education by A. H. Moehlman, and the perceptive review of *The High School in a New Era* by Saylor and Reckewey.

In fact, we don't see how you can skip anything in this issue. Equally worthwhile are the story of how a new curriculum was established by a North Carolina community, written by Herb Wey; the Peters-Riccio analysis of competition and cooperation; the plea by Bernstein for emphasis on guiding gifted young people into positions of political influence.

If you are already up to here with opinions on secondary education, there is still one article for you: Bill Land's discussion of federal educational policy. Finally, if you don't read at all, there's a *Coronet*-style picture story on Russian secondary education.

—S. E.

*From the 1953 commendation by SecNav Dan Kimball.

Some Problems of the American High School

(A Preliminary Report of the Conant Study)

CONANT

Educators across the nation eagerly await the Conant Report on the American High School, now promised for February 1. Its author has not kept his views under wraps, however. He offered one of the most complete statements of his findings and of his position at the National School Boards Association Convention in Miami Beach last April. Here is a condensation of that statement.

By **JAMES B. CONANT**

YOUR national meeting this year is dedicated largely to a consideration of the curriculum of the senior high school, on which public attention has been focused in the last six months as many prominent citizens have spoken about the need of training more engineers and scientists. But my concern with the high school is not limited to one type of student. Furthermore, I would say that my present study of the American public high school was organized more than a year ago, before the Russian success with rockets started the landslide of words about the alleged shortcomings of our public schools.

For many years, I have been convinced there has been a wastage of America's most valuable asset—the talent of our youth. That this has been so, no one familiar with education denies. In the process of developing talent, the high school occupies a key position. Those in charge of each high school have the responsibility for carrying out a most difficult and most important task: namely, providing education for *all* the youth of the community. The abilities and vocational goals of these boys and girls are spread over a wide spectrum; no one program of studies can possibly cover all.

Six years ago, discussing the shortcomings of American public schools, I wrote: "To my mind, first and foremost among these shortcomings is their failure to be sufficiently concerned with the intellectually able youth. There is no reason why, within a comprehensive high school well supported by the community, a boy or girl who has academic ability cannot receive a good education."

On returning from Germany after four years' absence from the country, I decided that before I discussed high-school education any further, I should find out all I could about secondary schools by direct observation. Now, thanks to a grant from the Carnegie Corporation of New York, I am making a personal study of the American public high school. In my travels, I have visited some fifty high schools in seventeen states, talking with principals, superintendents, several thousand teachers, and hundreds of students.

I have not made a survey or an evaluation of American public schools, nor can I generalize about the present status of public secondary education. Indeed, it never occurred to me that *anyone* would believe it possible to answer some of the questions posed and answered in the last few months. There are some 23,000 high schools; how would it be possible even to hazard an opinion as to the success or failure of *the* American high school or the *typical* American high school, if there were one.

Granted that the range of high schools is from those too small to be broadly effective to those in the big cities, still it was to the high schools located in independent cities of 10,000 to 100,000, and to schools serving a consolidated district of 10,000 to 50,000 inhabitants, that I first directed my attention. These are comprehensive high schools providing education for all the youth

of a community, whose families have varied ambitions for their children. Fewer than half the boys and girls desire education beyond the high school, and not more than a quarter of the graduating class can study effectively and rewardingly those tough subjects—advanced mathematics, physics, and foreign languages—which ought to be the educational fare of the bright pupil. In these schools, if they are satisfactory, there will be several successful vocational programs.

That the intellectually able student was receiving a satisfactory education in certain large suburban high schools has long been evident to all who were well-informed about school and college affairs. As president of Harvard, I knew of certain suburban public high schools that, year after year, sent a number of able boys to us. But these schools, while possibly comprehensive, had little experience with the problems that must be solved in other types of communities in which the majority of the students are not college bound.

The questions I set out to answer, then, were as follows: Are there high schools in different sections of the country, other than suburban schools, which are doing a satisfactory job of educating future voters and citizens, of providing a range of vocational education for many, and providing instruction in English, history, mathematics, science, and foreign language that will intellectually nourish the able? And, if such schools exist, can their organization and procedures readily be adopted by other comprehensive high schools of the same type that are inadequate in one or more respects? My answer to the first question is in the affirmative, with a reservation as regards the study of foreign languages. My answer to the second question is an unqualified yes.

Opportunity Beckons—Is It Answered?

Of course, the opportunities in a school must not only be offered; the pupils must be persuaded to take advantage of the opportunities. They must be persuaded to enroll in those courses which correspond to their ambitions and abilities. It does not suffice, for example, that stiff courses in physics and trigonometry are offered to seniors; a considerable majority of the more able students must elect them.

No one who realizes the wide range of academic ability among the pupils in the type of high school I am talking about will advocate making the study of trigonometry or physics or foreign languages a requirement for all. *There must be elective courses in the senior comprehensive high school which will occupy about half the pupil's time.* And since we are living in a free country, the decision regarding what subjects high-school children study is, in the last analysis, a decision of the child and parent. But good guidance and good counselors can influence this decision, and should. In the satisfactory schools I have visited there was almost invariably a good guidance program.

To my mind, the high-school principal should be asked to provide the superintendent with an academic inventory of the graduating class. This inventory could show the board of education to what extent the high-school students were, in fact, studying those subjects they *ought* to study.

Balancing Individual, National Welfare

It seems presumptuous in a free society for anyone to say what a boy or girl ought to study (unless it be the parent); yet this philosophy of individual freedom could well be tempered by two considerations: the welfare of the individual, and the welfare of the nation. Clearly, a balance is required. The first constraint upon the complete educational freedom of the pupil is in the belief of the community that, for the development of the future citizen of our free society, certain studies must be pursued by all for a period of years. Beyond that, the rest of the program of studies should be, if possible, related to the pupil's ambitions beyond high school. He or she should have a vocational goal in mind. And for certain pupils this goal should be a professional one requiring as the next step a college education. And here, both individual and national interest come into consideration.

For the welfare of our citizens, for the preservation of our freedom, for the maintenance of our highly industrialized society, many men and women are required with highly specialized skills that are the result of long years of formal education. This is a new development, hardly half a century old, in some respects only a decade old. A hundred years ago, professional persons could be trained as apprentices with a minimum of formal schooling. Today, they may require twenty or more years of formal schooling, *and only those with certain kinds of ability can hope to complete such arduous academic labors.* Those who can, I shall call the academically talented—about 15 per cent of our high-school population. They should be identified, if possible, as early as in the higher elementary grades. Upon graduation from high school, they ought to have studied the following: four years of English, three or four of history and other social studies, at least three of mathematics, at least two of science, three years of one foreign language, and either another year

of mathematics and physics or three years of a second foreign language. This program demands five subjects each year with fifteen or more hours of homework each week.

At any rate, it would be well for each school board to see from an inventory of the graduating high-school class what, in fact, the academically talented students have been studying. From a list of the 15 to 20 per cent of the pupils who scored highest on some standard test or tests of mathematical and linguistic ability as early as in the eighth grade, the principal could summarize the individual programs to show what per cent of this group (the academically talented) *had* elected mathematics, science, and foreign languages. Of course, the students' names would not be given. If the board believed, as I do, that the programs of the able students ought to be of the sort I have just outlined, and in fact they were not, then the situation would deserve investigation. The counselors may not have been persuasive enough, they may have given poor advice, or the parents may have been too resistant. Whatever the situation, the school and community should want it corrected.

As a trial of the inventory, I asked a number of the high schools I have visited to send us the programs of the academically talented youth in last year's senior class (about 15 per cent of the total class). These were schools whose good reputations our observations tended to confirm. In terms of general and vocational education, they seem satisfactory. But how about the education of the academically talented? Were the really top-flight students taking the courses they ought to take? This question the academic inventory approximately answers.

Talented Boys Are Studying Math, Science

Remember: these are schools in which less than 50 per cent of the boys and girls are going to college. In all of them, at least two-thirds of the academically talented boys had taken three or more years of mathematics, and at least half had taken four. In some, over 90 per cent had taken over four years of mathematics.

In physics, the figures are quite comparable. For the academically talented boys, they run from over 90 per cent taking physics in some of the schools, to over two-thirds in 90 per cent of them. Again, in 75 per cent of the responding schools, at least two-thirds of the able boys had taken physics, chemistry, and three years of mathematics, whereas in half of the schools the mathematics figure was four years.

I think any experienced person would agree that the boys who had completed three or four years of mathematics, plus physics and chemistry, were satisfactorily prepared to go on with science in a college, or to enter an engineering school; assuming, of course, that they had done well and were well-taught. But I think the minority of the academically talented boys who, in a number of schools, failed to take advantage of the four years of mathematics and physics offerings were either ill-advised, or the parental pressure worked too strongly against the good advice of the guidance counselors. In short, whether the fault lies with the community, the school board, the administration, the counselors, the parents, or the teachers, I am not prepared to say. But wherever it lies, it ought to be corrected.

We're Wasting Girls' Academic Talents

As to the girls in the schools just mentioned, the story is very different. The inventory disclosed that in not one school had as many as *half* of the academically talented girls elected four years of mathematics, and in only 50 per cent of them had as many as *half* of the academically talented girls elected even three.

In the physical sciences, the girls present an even more dismal picture. In not even one school had as many as half of the academically talented girls elected both physics and chemistry. In the physics courses, they were conspicuous by their absence. The sharp contrast between the boys and girls illustrates how parental influence, social mores, and the advice of counselors affect the kind of education the able students receive in even the better schools. I know that one can argue that a bright girl receives a better education in high school by electing art and music and home economics instead of advanced mathematics and physics. And I know that in the past engineering has rarely offered a career to women. But chemistry—particularly biochemistry—does. And I am sure the nation is losing many good science and mathematics *teachers* because of the many able girls who are now choosing soft programs in many high schools—that is, soft for them.

Perhaps some of you will say that for most girls the study of foreign languages is likely to be more rewarding than the study of mathematics and physics. Perhaps, but in only a few of the schools we visited have any considerable per cent of the able girls studied a foreign language long enough to acquire anything of permanent value. Indeed, the enrollment in foreign languages that we have found is in marked contrast to that in science and mathematics. Although we have visited only schools with a good reputation (I am *not* talking about suburban schools) we have found school after school in which foreign lan-

guages were *offered* for only two years. However, I can report having seen over half of the able girls and boys doing three years of a foreign language. This means that in a comprehensive high school, under the right conditions, able students will elect three years of a foreign language. But the tendency to be satisfied with two years of foreign language study in a high school is most regrettable; it is like drilling for oil and stopping just before the oil is reached. A report of the NEA Conference on the Education of the Academically Talented held in Washington in February, 1958, deplored the dabbling in foreign languages illustrated by programs which include two years each of two foreign languages. My recommendation is that a school board should be ready to have third- and fourth-year classes in a foreign language if there are any pupils desiring to enter such classes, no matter how few; and the same should apply to any sequential subject.

To sum it up, all of these schools from which we have obtained inventories are non-suburban public high schools in which the academically talented pupils are in a minority; and yet a sizeable majority of the academically talented boys had taken stiff courses in mathematics and science, and some even in foreign languages, although it is unfortunate that more of these able boys did not follow the full sequence in a foreign language course. This, however, is a situation that in these schools could be improved without great difficulty. *Indeed, I believe that all comprehensive high schools could offer satisfactory programs for the academically talented pupils and, with good guidance, could persuade a high percentage of the boys to elect those programs.* The situation for the girls is so unsatisfactory from my point of view that I hesitate to make an equally bold statement.

Five 'Solid' Subjects Not Too Much

Those of you who follow the details of curricula may have been doing a little calculating while I have been speaking and may be ready to raise an objection to my prescription of a realistic program for the academically talented youth. You may say that five "solid" subjects is too much for even the able pupil. To which I would reply that I have been in many schools where the academically talented, including student leaders, were taking such a program and doing fifteen or more hours of homework each week. You may further say that I am allowing no room for other elective courses. I would answer that, while the too-prevalent six-period day makes it difficult to fit these subjects into the program, an eight-period day (with 45-minute periods) does not. I am not talking theory. I have been in excellent schools where this is being done. In the second place, I have visited more than one high school where able pupils had used the summer session for elective subjects.

Sectioning for Ability Levels

The academic inventory does not tell how well the subjects are taught. The success or failure of the academically talented youth on external examinations, such as the College Entrance Examination Board, provides some information on that, as does the subsequent scholastic record. There are, however, certain indications that can be noted by comparing the enrollment in the junior and senior classes in mathematics, science, and foreign languages with the results of the academic inventory. If in a given school, for example, the number of academically able senior boys is approximately twenty (as there would be with a graduating class of 200 in the school I am discussing), but 100 or so boys are enrolled in the trigonometry class or the senior physics class, the chances are that the courses are not demanding enough from the pupils—they are too easy. For this size class in this school would mean that a large number of pupils with only average ability were enrolled in a course that ought to be geared to the capacity of the able. But you may ask: "Is the average student to be debarred from taking trigonometry or senior physics?" "Not debarred, but warned against trying to jump too high a hurdle," I would reply. If, as is true in some suburban schools, many parents of children with average ability insist that advanced mathematics, physics, and foreign languages be available for their children, then the administration must see to it that there are separate sections in these subjects for those of lesser ability.

I know the subject of ability grouping has been controversial. I could readily recite the arguments *pro* and *con*. But I am convinced, largely from the testimony of students, that there should be sections for the more able pupils in English, the social studies, and courses in mathematics, science, and the foreign languages which are elected by pupils with a wide range of abilities. The grouping should be *subject-by-subject*. For instance, a pupil might be in a class with the most able in English, but with less able pupils in mathematics because of lack of mathematical ability. I make an exception of a senior social science course dealing with the problems of American democracy. There, pupils of widely different abilities and vocational goals can study

together with advantage to their development as citizens of a free society. In the other courses, however, the alleged development of democratic spirit by mixing different types together I believe to be largely an illusion, and the academic disadvantages are great. Some of the best ways of promoting social cohesion among the pupils are home rooms heterogeneously grouped and tied closely to an effective student council, physical education classes, and the general student activities. And I might report in this connection that with few exceptions, in the schools I have visited, students elected as leaders were the able students who were taking a fairly tough program.

With these brief comments about "ability grouping" and the development of social cohesion in the school, let me return to my main topic, the inventory of the curriculum. English and social studies will be required subjects for all pupils in all four years. A year of American history for all pupils was required in all the schools I have visited, and in most instances the instruction appeared to range from satisfactory to excellent. I doubt if a school board should concern itself with details of the English and social science courses except for one important matter—the teaching of composition. Here the quality of the instruction turns more than in almost any other course on money, hence on a decision of the school board. Let me explain.

Respite for the English Teacher

In English, about half the time should be devoted to composition and about half to literature. The able pupils, at least, should be writing one theme a week, and these themes should be corrected and discussed with the boy or girl. In many schools I have visited, however, too few themes were written. Why? Because the teachers were responsible for 150, or even 180, pupils. Such overloaded teachers could not find time to read the number of themes that ought to be required. Learning to express oneself with precision and style is as important as any phase of the high-school work. The school board ought to see to it that good English teachers are employed and that each teacher has responsibility *for not more than 100 pupils.*

The academic inventory I outlined a few moments ago would provide information to enable the school board and the public to find out whether the academically talented youth were by and large electing tough or soft programs. Remember, these are not more than 20 per cent and often not more than 15 per cent of the student body in the school I am discussing. (In certain suburban schools, the relative proportions may be higher.) What about the courses that ought to be elected by the other 85 per cent or so of the student body? Briefly and over-simply, I would say that in addition to the general education that would occupy half to two-thirds of the time, the other pupils should elect a consistent program directed towards development of a specialized talent or vocation. A very few with real artistic or musical ability might be devoting nearly half their time in the senior high school to those areas. The majority should be electing a set of courses that fit into a vocational pattern. For the girls, this might be typing and stenography, office practice, or distributive education (with work experience). For the boys, it might be one of a number of shop courses, or mechanical drawing, or both. The school board might well examine the programs to see if these conditions are usually met. They might also check the vocational program from time to time to see if those thus trained were finding employment in the area. Finally, they should have advisory committees of labor and management for each vocational shop program.

I do not wish to be involved in an argument on general principles about the advantages and disadvantages of separate vocational schools. I recognize their traditional place in some large cities and in several states that have vocational education at the high-school level in separate schools. Nevertheless, from my evidence, I do not advocate the establishment of separate vocational schools in cities and areas where vocational education is now being given in a comprehensive school.

There are those who argue that all vocational education should be postponed until after the high-school years are past. With what appear to be the basic assumptions underlying that position, I find myself in complete disagreement. To my mind, it is desirable for as many boys and girls as possible to have a vocational goal in mind when they choose their high-school studies in the eleventh and twelfth grades, even though they may change their minds before the high-school course is over, or later. If a pupil thinks that what he or she is studying in school has significance for later life, the study takes on new importance. There is little tendency for such "committed" students to waste time or have a negative attitude toward school.

A discussion of vocational education in high schools is difficult, because it cannot be carried on in general terms. The *community* determines what programs can succeed. There are general high schools in certain suburban areas, for ex-

ample, where vocational programs would fail, because they would not attract enough capable pupils. Yet the programs must enroll a considerable number of better-than-average pupils (in academic ability), for the skilled technical fields require such ability. Indeed, a prime requisite for good vocational programs is that they be protected by administrators and counselors from becoming dumping grounds for those of low ability (I.Q. less than 90, let us say). Above all, a solution must be found for the problem presented by pupils with reading ability corresponding to seventh grade or lower. Those boys and girls (just above the mentally retarded) ought to be grouped in special sections with understanding and devoted teachers. English and social studies should be presented to them in special ways, and their self-respect should be built up through an interest in some kind of work, preferably, in part, outside of the school. They should be vocationally oriented, but not into vocations which call for the capable pupils.

Providing for the Student of Average Ability

This problem is closely connected with another, namely, providing an adequate education for the general student of medium ability. Indeed, some administrators have told me that this is their most difficult problem. What usually is involved here is devising a program for the "uncommitted pupil"—the boy or girl who is neither academically talented nor oriented towards a vocation. My present answer would be to try to increase the number of average pupils (I.Q. 90 to 110) who relate their high-school work to their future plans. And this drives me back to a key-note of this address, that a school system should have a well-financed guidance program whose counselors are aware of the social as well as the academic factors that must often shape wise decisions, both in school and in the home.

In satisfactory comprehensive high schools, the top 15 per cent or thereabouts of the intellectually able boys (and I hope many girls) would be electing five solid academic subjects each year. But there would be a few boys and girls in the category of the exceptionally gifted (some 2 or 3 per cent of the national high-school population). If their numbers warrant special classes, they might well be in advanced courses and by the senior year be ready to anticipate some part of a freshman year in college. Such a program is the Advanced Placement Program, a cooperative venture initiated by a group of high schools and colleges. If there are not enough highly gifted pupils in a comprehensive high school to make such a formal program possible, the gifted student should be challenged by advanced work in the academic courses in the senior year. This can be done by alert and sympathetic teachers. In one school these pupils are encouraged to develop their special interests by conferences with a teacher who serves as a sort of special tutor for this group.

How to Be Good, Not Merely Satisfactory

The introduction of special arrangements for gifted pupils is one of the changes that mark the transformation of a satisfactory high school into a genuinely good one. Provision of a developmental reading program is another. A school could hardly be considered even satisfactory without a remedial program, but a developmental reading program for those of medium or high ability is something that is just coming in. I have seen it in several schools, and I have been much impressed by the improvement in reading rate and comprehension that seems to result in the tenth, eleventh, and twelfth grades. The work must be on a voluntary basis, for it is the desire of each student to improve that is the basis of success.

A Word About Adequate Size

Let me conclude with a final word of caution. To provide adequately for its range of students, a high school must be of sufficient size. The minimum I should put as 100 in the graduating class. Thousands of high schools are much smaller. In some states more than half the boys and girls are in schools too small to provide a satisfactory education. In such states the need is to follow the example of New Jersey, New York, and California (to name only a few) and reorganize the school districts so as to eliminate as far as possible the small high school. I mention this matter of adequate size last because I consider it one of the most important things I have said to you.

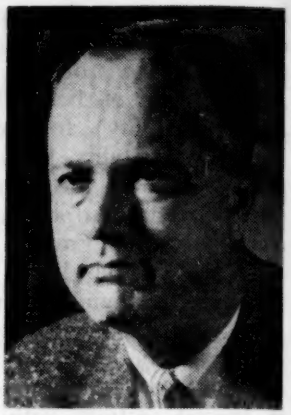
NSF In-Service Institutes Planned

The National Science Foundation announced in October that until December 15 it will accept proposals from universities and colleges interested in sponsoring in-service institutes for secondary teachers of science and mathematics, to be held during the academic year 1959-60.

NSF plans to support about 200 such institutes. Directions for preparing proposals may be obtained from the Institutes Section, National Science Foundation, Washington 25, D. C.

The Cult *Of The* Slob

America's most volcanic school superintendent-author here puts in focus—in fact, he puts in a white-hot glare—one of the most nerve-racking and fundamental problems administrators face: What can we do with the juvenile delinquent, given the purposes most of us have accepted for the schools and the compulsory education laws now universal?



RAFFERTY

By MAX RAFFERTY

Is this the Thing the Lord God made and gave
To have dominion over sea and land . . . ?
—Markham

WE speak today of changes—desirable or necessary—in the high schools of the land. Gentlemen, I invite you to consider with me the case of the triumphant Slob. . .

He stands before us at this moment, unwashed and unregenerate. His hair is agleam and adrip with oil, kneaded behind into strange whorls and sinuosities. Below the ears and following the slack jaw-line, it descends in bristling tufts, and with an exuberance unknown since the more militant days of the late General Burnside. Hairiness, in fact, is the very badge and symbol of the Slob. He spends a considerable portion of his day coiling and matting, as the Mock Turtle did reeling and writhing.

Our Slob is apt to wear his clothing much as the ladies of Regency days flaunted their bodices —for purposes of revealing rather than concealing. His shirt is open to the fourth button, coyly baring naked flesh down even to the navel. Trousers are slick denim, buckled low upon the hips and hinting at an eager willingness to go even lower. Boots are standard Slob attire, as is the cheap leather jacket with "GENTS" or "ROADRUNNERS" blazoned luridly upon its back.

His stance approximates the so-called "debutante slouch" of a generation ago. His walk is an exaggerated, hip-swinging roll which harks back to the gait of the old salt-water sailor temporarily marooned on land. His talk is a modern thieves' jargon, relying strongly upon scarcely-disguised obscenity and intelligible mainly to other members of the cult. His music is the monotonous and nerve-racking drumbeat of the primeval jungle.

If we were to overcome our instinctive revulsion long enough to institute a more intimate search of the Slob's person, we should find exotic treasure indeed. Aside from the miscellaneous and unprintable items of pornography which we may expect as a matter of course, we are bound to come upon several pieces of equipment which will cause even our experienced eyebrows to do a demivolt. I do not refer here to the ubiquitous switch-blade knife, normally used to enforce terrorized quiescence upon the victim of a mass rape. Nor do I allude to the bicycle chain, commonly swung menacingly about the heads of smaller boys in order to collect protection money, nor even to the zip gun which lends a deadly note to the gang rumbles.

No, I have reference rather to the inked or tattooed device worn upon the hand or arm, strikingly suggestive of an unholy brotherhood of crime and startingly reminiscent of the Mafia. I allude in passing also to such esoteric appurtenances as the razor-studded cap brim for slashing faces, and the shortened tire-iron for breaking legs. Surely, such a walking chamber of horrors should at least cause us to pause for consideration.

I am reminded in this connection of the Duke of Wellington's comment when confronted with a somewhat similar situation. During the Penin-

MR. RAFFERTY *(Alpha Chi 36) is superintendent of the Needles, Calif., schools.*

sular Campaign, the Duke kept the sea-lanes to London sizzling with his insistent demands for reinforcements. After an interminable delay, the laggard troops arrived in Spain, but to everyone's horror, they turned out to be jailbirds and sturdy rogues, the scourings of the London streets. As the Iron Duke sat glumly on his horse before the heights of Torres Vedras watching the clumsy recruits attempting to drill, an eager aide approached him.

"Tell me, m'Lord, d'ye think these blighters will frighten old Boney?"

The Duke regarded him grimly.

"I can't say about Boney, but by God they frighten *me*!"

I must confess that I am with the Duke in this matter. They frighten *me*.

Study Slobbism—in Self-Defense

It is these added refinements, these supererogatory icings on the cake of delinquency, which in my opinion constitute ample cause for our serious study of the Slob in any symposium on high-school problems. In sober truth, and especially since educators have of late become prime targets of the Slob's more lethal aggressions, we are left with little choice other than to initiate an examination of Slobbism, if only out of self-defense.

After all, so long as the characters who lurched menacingly about our high-school corridors and snarled defiantly at their teachers confined their activities to mere lurching and snarling, it was expedient for us to chalk up such behavior to "release of tensions" and "animal spirits," and to let it go at that. A good many of our abler instructors, it is true, dropped out of the business, unable or unwilling to assume the role of Frank Buck constantly challenging the carnivores, and some of the hardier souls who stuck it out were carried out feet first as the result of brushes with certain of their pupils whose tensions they had unwittingly helped to release. But minor bloodletting such as this was dismissed by school administrators as statistically inconsequential, and life in the Great American High School rocked and rolled along its accustomed path.

Until recently. . .

When, a few months ago, a junior-grade disciple of Slobbism toted his rifle to school for kicks, and spent the better part of a half hour chivvying his startled principal from office to lavatory as the hot lead flew.

And a short time later, another junior high principal was so bedeviled and intimidated and just plain scared that he chose to solve his problems by jumping off a roof and spattering himself all over a playground, while the Slobs stood by and sniggered.

Then, just recently, the crash of shotgun fire added a touch of piquancy to the run-of-the-mill noises of a California campus as a sulky Slob blew the leg off an athletic director who had been unwise enough to intervene between the grinning gunman and a potential victim.

It may seem at first glance that these examples of Slobbism are excessively sanguinary, but simple assault and battery in the schools is, quite frankly, too common to talk about. Almost every edition of your favorite newspaper contains a matter-of-fact story about some school man who has been slugged or roughed up by a pack of punks. Such treatment is coming to be regarded as just another occupational hazard, ranking somewhere on the scale between simple writer's cramp and accumulation of chalk dust in the lungs. So long as this one-sided tong war took place outside the inner sanctum of the principal or the superintendent, we administrators were inclined to shrug it off.

Isolated instances, you know. . .

Or, "Mr. Jones brought it on himself, in a way. Had trouble establishing rapport."

But recent happenings have placed things in a somewhat different light. The zip gun sights have been raised, and Mr. Administrator is finding himself uncomfortably in dead center. His concern has ceased to be academic, and is rapidly becoming personal. I can only assume that a good many of my colleagues, in the face of imminent stabbing or shooting, are going to revise their priority listings of significant high-school problems to place Slobbism somewhere up near the top.

At least, they will if they are as downright cowardly as I am.

School Not Battleground, Hunting Preserve

Even if school men turn out to be heroes, however, it is still high time to concern ourselves seriously with the peculiar problem posed by this twentieth century version of *homo neanderthalensis*. A school is neither a battleground nor a hunting preserve, and unless we address ourselves energetically to the solving of this puzzle, we are going to find ourselves increasingly beset within our ivory towers by baying bands of Slobs. So perhaps the mills of the gods, by grinding perilously near our persons, may compel us at last to take the action which the scandalous and pitiful plight of our normal, decent pupils, terrorized by these creeps, has so long demanded of us.

The old head-in-the-sand technique of minimizing or ignoring the size of the Slob in the hope that he will somehow get lost won't work anymore. It has been fashionable to say smugly that these are maladjusted boys, thrown up through no fault of their own from the modern maelstrom of wars, depressions, and broken homes. To this pious platitude is usually appended the magnificent *non sequitur* that, after all, these social deviates compose but a very small fraction of the total adolescent population. A similar observation, of course, might be made with equal truth about the cholera bacillus.

Let's Understand the Enemy

It is important that we understand our enemy. And it is an enemy we are talking about, not just a misunderstood by-product of the machine age. The Slob, or more importantly the whole institution of Slobbism, is the mortal adversary of Education.

Slobbism negates all the values which we teach.

It convulses hysterically against all disciplines.

It derides morality in any form.

It persistently seeks out ugliness and filth in preference to beauty and decency, like the unlovely but irreproachably Biblical dog which insisted on returning to its vomit.

Above all, it takes pleasure in inflicting pain.

The Slob is thus the exact opposite of the gentleman, who is defined by Newman as one who never willingly inflicts pain. Our Slobbish citizen not only inflicts pain; he revels in it. The threatening note, the obscene phone call, the ravaging of women and children—these are the Slob's stock in trade. Indeed, it has been truly said that his sole interests are sadism, sex, and speed, in that order.

The Slob's mental processes are so rudimentary as to be almost non-existent, although a certain amount of animal cunning is sometimes to be found in his agile twisting and turning to avoid work and to remain out of jail. The brain, however, is not so much deficient as unused. It has been short-circuited by a constant succession of appeals to the emotions. The Slob is ruled by his passions. He warms easily to rage. He burns with lust upon the slightest pretext. He shivers, occasionally, with clammy fear. He is adrenal rather than cerebral, physical rather than mental.

He is, in short, the perfect antithesis of everything Education stands for. The paradox lies in the fact that he is also the product of Education. A dozen years ago, he was in our kindergartens. He went on our field trips to the bakery, and danced around ribboned poles at our May Festivals. Only yesterday, he was studying "social living" in our junior highs. He has been tested and guided and motivated. It has cost the taxpayers, over a decade or so, several thousand dollars to produce a Slob. It hardly seems worth it, does it?

To wax classical for a moment, we may compare Education to old Cronus, who produced a numerous family, only to find himself in his old age hunted down mercilessly and mutilated by his own children. This is a melancholy prospect indeed. Let us see if, from our knowledge of Slobbism, we can avert from our profession the fate of Cronus.

First, let us clear the ground by conceding in advance some of the more obvious truisms. Let us concede that the great majority of our high-school pupils is as yet free from the grosser manifestations of Slobbism. We can agree, too, as to the essentially non-school origins of the phenomenon. No one doubts the intricately complex causes which rub against each other long enough and intimately enough to produce the smolder or the flash of blind violence. But, when all this has been said, it does not follow that Education is absolved of all responsibility for the golems who stalk its halls.

Whose fault is it that no more exciting and rewarding goal than sheer sensuality has succeeded in capturing the imagination of these people? Hedonism, after all, is as old as the hills. Its lure was exploded before Christ. Surely Education can, if it tries, break in upon the sterile, revolving-door cycle of liquor and licentiousness.

Who is to blame for the pathological inability of these persons to concentrate for more than a few fleeting moments on anything less basic than feeding, fighting, and fornicating? Could it possibly stem from the kaleidoscopic and chaotic mishmash of canal-building, Hopi Indians, tomato growing, air transport, and steel puddling through which we have merry-go-rounded our pupils in recent years? Is it possible that we have produced a group unamenable to discipline simply because we have never insisted upon their mastering anything which required discipline to overcome?

To the Slob, Life Is a Dirty Joke

It is barely conceivable that, by destroying the hierarchy of values which placed mastery of specific subject matter in a position of paramount importance, we have persuaded these already confused minds that nothing in life, including life itself, is of any particular importance. We have required them to go to school, but we have not required them to do any work. Instead, we have

created special "courses" wherein they might sprawl and leer in company with one another, and where constructive learning is laughed out of court. To the Slob, life is a dirty joke, with school the cream of the jest and educators the buffoons.

We talk of change in the nation's high schools. Here is a change which must be made, and soon, if we are to avoid destruction.

Socially Uneducable Must Be Excluded

One way or another, the Slob must go. Those of his ilk who have passed the point of no return must be excluded from our schools as socially uneducable, even as we exclude the unfortunate imbecile as mentally uneducable. And let no one challenge our right to take this step. The Slob is more dangerous to his classmates than a walking case of typhoid or tuberculosis. We have not only the right, but the clear and positive duty to quarantine him. It is our shame that we have not done so sooner. What will become of him? When he has reached this stage, he has passed beyond our power to correct. He is no longer susceptible to Education. He has become a subject for criminology.

As Dr. Johnson said of the Scotchman, much may be done with the Slob if he be caught young enough. With a program of specific goals, scientific testing, understanding guidance, and consistent discipline, a school should be able to nip a great deal of Slobbism in the bud. If the school is fortunate enough to be located in a community where the police are alert, the courts tough, and the citizenry concerned, the cult of the Slob can be broken by the united action of all. Where such a happy combination of attitudes is not present, it becomes the positive duty of the school administration to work diligently within the community to produce it.

We have gone overboard on universal education. It has become a fetish, instead of a logically considered objective. By our stubborn refusal to exclude clearly pathological cases from school, we are presently permitting this fetishism to work irremediable wrong upon the great majority of normal children whom we are exposing to this moral plague. It is my conviction that Slobbism is a highly contagious disease. It must be treated as such. Isolation and prophylaxis are strongly indicated.

Law cannot help the deliberate homicide. He defies it.

Medicine cannot help the would-be suicide. He rejects it.

Religion cannot help the hardened atheist. He disbelieves it.

Even so, Education cannot help the full-blown Slob. He loathes it.

It is a sorry tribute to our perspicacity as schoolmen that we have let this thing drift to the point where many of us have become quivering quarry in our own classrooms. I submit that it will be pointless and tragic folly for us and for our country if we stand dithering by while the throat of Education is slowly cut with a switch-blade knife.

The Hunted Seal

As long as that thin red tube hangs
over the bathtub we will be regaled with
beautifully-written, well-reasoned compositions
like this from good old Max,
which attacks effects, ignores causes.

While we are murdered slowly by our pushbuttons,
the machine occasionally spews out finely-ground
diamonds
filled with virtues such as
"I dare," "I attack," "I am, Am, AM an Individual—
and hurl my dirty-minded obscenities at your
still fouler hypocrisies."

Before chloroforming the Punk,
let us begin on his, your, our parents, teachers,
preachers, and others without faces,
or even Honesty.

Although the Punknik stinks to the high heavens, yet
I love him because he is Honest and a Man.

Drop everything now
and read *Lolita*. If this ice-breaker plows you under
and puts the hunted seal (Slob) on top,
who else to blame but yourself?

—Louis J. Henrich

A Comparison: EUROPEAN Vs. AMERICAN Secondary Schools

By **ADMIRAL H. G. RICKOVER, USN**

I FIND the study of education as absorbing as my work in atomic energy. Indeed, I find the two subjects so intertwined that I would have had to be most unobservant not to have gotten myself involved with American education.

In my constant search for competent people to work in the nuclear power program, I was inevitably driven to the conclusion that something is radically wrong with our educational system. I have given this *much thought* and I believe it is possible to pinpoint *where* educational inadequacy causes a bottleneck and *why* this is so.

The specialized education offered in American colleges and universities for future professionals is —with some significant exceptions—pretty good. But professional education in America is severely handicapped by the weakness of our public elementary and secondary education. Traditionally, twelve years of schooling were thought sufficient to enable students to read and to write correctly, to obtain a solid foundation in history, geography, mathematics, and the sciences, and to acquire competence in reading at least one foreign language. Upon this foundation, the professional schools then built programs of about four years' duration, designed to equip an already broadly educated young man or woman with the vast fund of specialized knowledge required by a modern professional person.

Now if the underpinning is weak two things must happen: either the future professional must lengthen his period of schooling by two to four years in a liberal arts college, so that he may acquire sufficient general knowledge to perform his professional duties in a wise and socially responsible manner; or his course of professional study itself has to be overloaded with remedial courses—as in English or mathematics—and with hastily concocted general humanities courses to patch up the gaps in his pre-professional schooling.

In the first case, the time required to attain professional standing is lengthened beyond what is tolerable to many talented young people—they simply will not wait that long to establish themselves and become economically independent. Moreover, the need to attend college before starting professional school is costly for the student as well as for the college. Tuition alone runs to about $1,000 to $1,500 annually, but this is only half what it costs the college to educate the student.

In the second case—where professional schools attempt to make up for previous educational deficiencies—the student has a heavy work-load and achieves only a most sketchy sort of liberal education. For engineers, the first two years of professional school lean heavily to basic courses in mathematics and sciences; in addition, many freshmen must take remedial courses. The result is that too much of the engineering course has to be squeezed into the last two years. The study load then becomes too burdensome—about sixty hours a week of classroom, laboratory, and homework for four long years. Such cramming is not the best preparation for a professional.

Shortages Begin with Time Wasted in School

The chronic shortage of good scientists, engineers, and other professionals which plagues us is the result of inadequate pre-professional education—of time wasted in public school which somehow must be made up later on.

But, it is said, our public education must concern itself more with the average student who does not wish to become a doctor, lawyer, or engineer. For these average students the situation is, if anything, worse. They must depend for competence in dealing with life's problems on what they have learned in the twelve years from age 6 to 18.

Now this is the time in a youngster's life when he can most easily absorb large numbers of facts

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ADMIRAL RICKOVER *is chief of the Naval Reactors Branch, Division of Reactor Development, Atomic Energy Commission, and Assistant Chief of the Bureau of Ships for Nuclear Propulsion. He prepared this paper for delivery at the fiftieth anniversary celebration of the St. Albans School in Washington, D. C., last spring. It is printed here by permission of the author.*

and when his curiosity can most readily be stimulated to want to do so. This is the time when young minds should be filled to capacity with impressions; when they should be stretched to their maximum. Only the school can do this. It can do it for children of most varied natural endowments, if it frankly recognizes these variations and devises curricula tailored to the capacities of the talented, the average, and the below-average child. Each group can then develop best at its own rate of speed. For each the same basic process of storing the mind with knowledge can be adapted.

Same *Kind* of Mental Food for All

Since the *above-average* pupil is two to three years ahead of the *average* pupil in mental age, he can complete the curriculum in a shorter period, or he can absorb more academic subjects or study them more deeply. But the same type of mental food which the above-average pupil needs is needed also by the less gifted. Even the *below-average* child who may be two to three years behind the average in mental age and whose maximum capacity may be limited to the sixth grade—even he ought to be taught the same basic course of study given in the first six elementary years, though at a much slower rate. It may take him until age 15 or 16 to complete the sixth grade. But if he can be motivated to want to, he can at least be taught the three R's.

For all children, the educational process must be one of collecting factual knowledge to the limit of their absorptive capacity. Recreation, manual or clerical training, etiquette, and similar know-how have little effect on the mind itself and it is with the mind that the school must solely concern itself. The poorer a child's natural endowments, the more does he need to have his mind trained.

We should not have to support schools if we want no more than "adjustment" of children to life as it *is*. Children learn this in simpler societies just by "living" and by the incidental training they receive from the grown-ups around them. A child is being properly educated only when he is learning to become independent of his parents. We have schools because we know that in today's world everyone is daily called upon to make decisions for which he needs a background of general knowledge, not obtainable merely by "learning through living." To acquire such knowledge, fact upon fact, takes time and effort. Nothing can really make it "fun." If we try to spare our children mental effort and to protect them against disappointments or personal failures through flunking exams, we send them ill prepared into a competitive world. This is most dangerous in a democracy for, as Jefferson warned us: "If a nation expects to be ignorant and free, in a state of civilization, it expects what never was and never will be." Note the qualification, "in a state of civilization." Formal school education was not as vitally needed in American pioneer society as it is in 20th Century America. The degree of ignorance which a democracy can tolerate varies in inverse ratio to the advance of the nation toward higher cultural and scientific levels.

Our elementary and secondary education must thus provide first, for the average and below average student, a sufficiently broad terminal education to fit him into a modern technological society; and second, for the talented student, a solid underpinning for subsequent professional education. Neither of these two objectives is achieved in the majority of American public school systems. Unlike all other Western countries of similar civilization, we lack a national standard for curricula, for school-leaving examinations, for diplomas, or for teacher qualifications. There is a wide variety in the school systems of different states, even for different cities in the same state. We have some excellent school systems but many more are poor ones.

Why do most of our public schools fail in the objectives I have mentioned? Basically, I think, because today these two purposes are *not* the objectives of our schools. We are reaping the consequences of the destruction of traditional education by the Dewey-Kilpatrick experimentalist philosophy. While we have fortunately been spared wide application of progressive teaching methods in the schools themselves—thanks primarily to the heroic resistance and good judgment of our teachers—the spirit of Dewey permeates our teacher colleges and our state boards of education. It makes its pernicious influence felt in the steady deterioration of secondary school curricula, the overlong prolongation of elementary schooling, and the denial to teachers of professional status.

Dewey's Contributions—and Failures

We must give credit to Dewey and his followers for having improved what once was altogether too autocratic a relationship between teacher and pupil, and for bringing a relaxed and friendly atmosphere into our classrooms. But we must also, on his own pragmatic terms, reject Dewey's claim that experimentalist education "adjusts" the child to life in a changing society such as ours, and that it does this better than traditional education.

Dewey's desire to alter curricula so as to teach subjects which will be of use to the child in life

can be accepted only *if* we interpret the term "use" in its broadest sense. Unfortunately, his ideas have led to elimination of many academic subjects on the grounds that they would not be "useful" in life, and to substitution of trivial, recreational, and vocational subjects alleged to be of more practical value. The student thus receives neither intellectual training nor the factual knowledge which will help him to understand the world he lives in, or to make well-reasoned decisions in his private life or as a responsible citizen in a modern democracy. He is instead handed a bag of "know-how tricks": he is helped to become a pleasant, nicely-mannered young person, able to get along with whatever group he joins. Even for the average pupil, these subjects are not mentally stimulating—they barely touch his mind.

Our schools once had the important task of Americanizing large numbers of children whose first need was to "adjust" themselves to a new country. This the schools have done magnificently. But today ours is a pretty homogeneous country, a country where the majority no longer live in poverty, where most families consider themselves middle-class and enjoy a material standard of living much higher than that of the middle classes of the past. Traditionally, training of children in manners, appearance, poise, and consideration for others has been a distinctive function of the middle-class family. Nowhere have the schools to which middle-class children go been expected to take over this function which belongs to the home. Formal school education has always and everywhere been concerned solely with development of mental powers, with due attention also being given to physical exercise for purposes of safeguarding the pupil's health.

Time Only for Intellectual Training

Intellectual training can be combined with home training only when schools are residential—as are the famed English "public" schools. In a short school day there is not enough time to do both. I suggest we turn back to the home what is properly the function of the home and permit the public schools to concentrate on what is properly their function—the education of young minds.

To that end, we must break the experimentalist hold on curricula and teacher certification. Pedagogy is an important skill in a teacher's professional equipment, but it is less important than thorough and deep knowledge of subject matter. Teacher colleges are now almost totally given over to pedagogy, school administration, and psychology. Teaching cannot become a true profession until, like all professions, it demands of its practitioners that they pursue a lengthy course of study in the special field of their choice. You cannot make of "pedagogy" as such or of "school administration" as such a field of academic study comparable to law or medicine. They are in a sense the minors in a professional course of study; the major must always be the specific subject to be taught later—a teacher must be a true scholar in his own field. His scholarship will, of course, differ depending on whether he teaches history, let us say, in elementary or secondary school, or in college. Different degrees of depth and breadth of knowledge will be required; also different methods of presenting the subject to the pupil.

Teachers Denied Chance To Be Scholars

Today, our teachers are, in effect, denied the opportunity to make themselves such scholars, because their right to teach and their professional advancement are tied to required courses in pedagogy which few of them would choose if they were given the freedom to plan their own course of study. Teachers do not have unlimited time to complete their professional training. If they are forced to waste much of it on pedagogical trivia, they have that much less time for serious study, and the losers are our children, of course.

Dewey's denial of absolute values; his insistence that learning leading to growth must be based on the experience of the child; and that the aims of education must be to modify behavior rather than to impart knowledge—all this gives American education a transitory flavor, ties it closely to the society into which the child is to be fitted. It also provides an effective smokescreen preventing comparison of American education with that of countries having similar ways of life. Indeed, we have long lived in educational isolation and it is time we look around and see what is being done in other countries.

To get the necessary data is quite difficult; there seems to be no agency in the United States collecting such information. Through the great kindness of Mr. Philippe F. Scholten, a graduate of the University of Leyden now residing at Middlebury, Connecticut, I have been able to obtain considerable data on education in The Netherlands. The Dutch system resembles that of most European countries. Education in the various countries of Europe has always been surprisingly uniform in standards and even in the details of school curricula, the unifying factor being the traditional demand of European students to have access to the universities throughout the continent. The universities themselves have always had fairly

uniform standards. These go back to the unity of Europe in the Middle Ages under a universal church which was the educator of the people.

In Holland, all education from kindergarten to university is almost entirely financed by the government. The six-year elementary school is free; the secondary schools charge small fees which are adjusted to family finances. University fees average about $75 per year.

After completing the six-year elementary school at age twelve, the Dutch child can enter one of six types of secondary schools. Entrance to these schools depends almost exclusively on the aptitude of the child as determined by examinations, but there is flexibility which permits later switchover from one type of school to another.

Three of these secondary schools are of *non-academic* types:

(1) The trade school, which lasts four years and which compares favorably with our vocational high school.

(2) The advanced elementary school, which also lasts four years and which offers a program about the same as the average American high school.

(3) The secondary school Type "A," which lasts five years and may be compared to our better public high schools.

In addition to these three *non-academic* secondary schools, there are also three *academic* secondary schools. One, the secondary school Type "B," lasts five years. Its graduates are qualified to study medicine and technical subjects at institutions of university rank, but not law or theology. The second one is the Latin-grammar school, Type "A," which emphasizes the humanities. The third one is the Latin-grammar school, Type "B," which emphasizes science and mathematics. Both of these Latin-grammar schools last six years and their graduates may study any subject at the universities. All three of these academic secondary schools terminate with a long and comprehensive government-supervised examination covering the entire school program and lasting several days. And there are no multiple-choice questions.

Dutch Schools Longer, Mostly Academic

I have made some calculations to compare the curricula of the Dutch secondary schools with our own six-year junior-senior high schools. The Dutch school day is 10 per cent longer than ours; the school week lasts six days or 20 per cent longer; the school year lasts 240 days or 33 per cent longer. The Dutch class period is fifty minutes and the homework required is a minimum of four hours daily. Further, no subjects but academic ones are taught, except gym, art, and music.

I have also tried to make a comparison of the credit points required in our secondary schools with those of the Dutch secondary schools. As far as I can determine, the student must take sixteen points of solid academic subjects in the last four years of our junior-senior high schools, or four points per year. And these sixteen points are all that are required to enter college. If we were to give equal weight to the first two years of our junior-senior high schools, the student ends up with a total of twenty-four credit points in academic subjects for six years. The Dutch student ends up with thirty credit points for the five-year school. And for the six year school, he ends up with forty points, or 66 per cent more than we.

To give you an idea of how these credits are obtained, let me run down the figures for these two types of Dutch schools:

First, the five-year school:

For the mother tongue (Dutch)	4½	points
For the three modern languages: French, English, and German	10½	points
For history and political science	3	points
For economics and accounting	4	points
For geography	2½	points
For mathematics	3	points
For physics, chemistry, and biology	3	points

I think you will agree that by the end of his sixteenth year the Dutch student at a five-year school such as this is at least as well versed in basic subjects as the American high-school graduate a year later. Even so, he will not be admitted to a university, since he is really not considered to be an "educated" person!

Now as to the six-year academic Latin-grammar school. Let us take Type "B," the one which specializes in mathematics and science, since it is closer to American education than the purely classical one.

The mother tongue (Dutch)	4	points
The usual three modern languages	8½	points
Latin and Greek	11	points
History	3	points
Geography	2	points
Mathematics	5½	points
Physics, chemistry, and biology	6	points

Europe has always demanded more of her children than we of ours, and for a very good reason. To attain a high standard of living, given a similar level of technology, a country must either have a favorable ratio of people to land and resources, or its people must work harder and more intelligently—they must acquire more competence. In

other words, poverty of land and of natural resources can be offset to a degree by better development of human resources. Ours has been the classical example of a high standard of living based primarily on favorable ratio of people to land, but in the last 180 years we have wasted much of our natural wealth and multiplied our population more than forty times. Though our ratio of people to land is still much better than that of Europe, it worsens each year and the day is not too far off when we shall be no better off in that respect than Europe. We must not let ourselves be impressed by total acreage figures. There is much desert and semi-arid land in our West, whereas Europe has carefully preserved its land and forests and has no deserts or arid lands.

Our Choice: Educate Better or Live Worse

As we approach European conditions, we may find that we shall have to make a choice: educate our children better or downgrade our standard of living. We still have a margin of safety but it is none too soon for all of us to think this matter over carefully so that we may express our wishes clearly and in the proper democratic way to those who run our schools.

Few of us have been aware of our worsening situation, for thus far science has been able to keep up with diminishing resources and a population growing three times as fast as Western Europe's. If we develop all our human resources, we shall still be able to insure a high standard of living to our children and grandchildren. But it cannot be done with 180-day school years, driver training courses, and print shop in high school.

All along the line we are paying for neglect of secondary education in mathematics and science, yes, but also in English, history, and geography. To maintain scientific and technological leadership and the modicum of culture necessary in a civilized society, we must get to work on the long-range task of reorganizing our public schools so that they may give us the kind of people needed today where few problems can be solved by common sense and hard physical work alone, but where the need above all is for well-equipped minds, "adjusted" to this scientific era in man's history.

Rickover as Comparative Educator

By **WILLIAM W. BRICKMAN**

ON August 9, 1958, the name of Rear Admiral Hyman G. Rickover, USN, once more occupied the front pages of newspapers. The unprecedented voyage of the atomic submarine, *Nautilus,* under the North Pole ice cap directed public attention to the man who had made the determined drive which resulted in construction of this type of underwater craft. The newspaper references to him as "the father of the atomic submarine" are well-deserved. The same dauntless and dramatic drive against superior odds led to his promotion to admiral rank.

Admiral Rickover has also been driving in another direction. In recent years he has been delivering addresses and publishing articles, mainly in mass media of information, in which he has subjected the field of education to critical analysis. Most of what he has been saying is well-known in professional and lay circles, although the admiral seldom refers to anything that has already been published on the subject of education. The discoverer of the atomic submarine has become the "discoverer" of educational problems.

On the one hand, it is always good to hear educational criticism from serious persons, no matter in what fields they may specialize. Any idea along these lines should give the educational profession a chance to re-think its philosophy and processes. At the same time, however, critical thought should likewise be examined under the critical microscope.

With this as an introduction, let us consider some of the recent educational thinking of Admiral Rickover. First, we might take into account his own statements regarding the origins of his interest in educational problems.

In his address of March 23, 1958, at the fiftieth

MR. BRICKMAN *(Rho 2025), a professor of education at New York University and editor of* School and Society, *is now president of the Comparative Education Society.*

anniversary celebration of the St. Albans School, Washington, D. C., Rickover attempted "a comparison" between "European and American secondary schools." His opening sentence reveals that this theme is as "absorbing" to him as his "work in atomic energy." He then goes on to say that in his "constant search for competent people to work in the nuclear power program," he "was inevitably driven to the conclusion that something is radically wrong with our educational system." To this issue he has given "much thought."

The extent to which Admiral Rickover has given "much thought" may be inferred from the contents of his speeches and writings. Let us not dwell on his simplifications and misinterpretations of the "Dewey-Kilpatrick experimentalist philosophy" (one looks in vain in this address for a Dewey quotation to which he takes exception). We can also afford to bypass the unproved cause-effect relationships and the dogmatism which abound in Rickover's paragraphs.

A Failure of Transfer

It is noteworthy that a scientist who is concerned with objective proof in his own field abandons scientific method altogether in discussing educational matters. Incidentally, several physicists have told me that they regard the admiral as a scientific administrator, rather than as a creative research scientist. Just as some educators may regard him as a scientist, there are scientists who consider him an educator.

It will be more profitable to review some of Admiral Rickover's thoughts on comparative education. In the St. Albans speech, he claims that the Deweyan philosophy of education "provides an effective smokescreen preventing comparison of American education with that of countries having similar ways of life." Moreover, "it is time we look around and see what is being done in other countries. To get the necessary data in the United States is quite difficult; there seems to be no agency in the United States collecting such information." It was "through the great kindness" of an alumnus of the University of Leyden, now living in Connecticut, that he was "able to obtain considerable data on education in The Netherlands."

To begin with the last remark, all the admiral had to do to get information on education in any of the larger and many small countries was to take a trip to the nearest good library. He might have written to the cultural attaché of any country whose educational system interested him. If his background includes an ability to read a foreign language, he could have purchased basic materials on foreign education in one of the specialized New York bookshops or by mail from abroad.

Admiral Rickover betrays no awareness of at least half a century's work in comparative education in this country or in any other country. He has evidently not heard of the researches and other writings of Professor I. L. Kandel and his predecessors. Nor does he seem to know what was done in the International Institute of Teachers College over a period of two decades. The information available from the Institute of International Education and the U. S. Office of Education has escaped him. He exhibits no knowledge of certain UNESCO publications easily available in the United States. If he has ever heard of the Comparative Education Society, he has certainly suppressed any evidence of it in his address. More can be cited to exhibit the nursery-school level of the admiral's knowledge about comparative education.

All this is no news to the professional educator. So far as Admiral Rickover is concerned, we can safely say that his present "thought" concerning comparative education represents the effrontery of ignorance.

It is interesting to note that many, if not all, of Rickover's addresses are released by the U. S. Atomic Energy Commission. This fact may lend weight to whatever he has to say on education, so far as the editors of mass-media periodicals are concerned. This may be one of the reasons why Rickover's remarks on education have found a ready market in the *U. S. News & World Report, This Week,* and others.

Testimony—But No Evidence

Perhaps it would be instructive to note the ideas of Rickover as they appear in the mass magazines. One of his addresses, delivered in November, 1957, was condensed in *This Week* magazine (February 16, 1958). Here the admiral maintains that "rightly, Sputnik has been seen as a triumph of Russian education." In his judgment, we Americans "have fallen behind in the vital educational task of motivating and training the skilled professionals needed by our country." However, "Russia seems to have no trouble turning them out in various numbers—three times as many engineers as we, for example." This argument is a clear example of lack of definitions and of equating quantity with quality. There is not a shred of evidence of any sort—only the admiral's testimony. Just how Sputnik reflects "a triumph of Russian education" is never demonstrated in any way resembling a scientific procedure of thought.

The quantity-quality fallacy occurs also in Rickover's frequent comparisons of numbers of hours of instruction received respectively by Soviet and American pupils. He nowhere speculates whether the considerable hours of teaching in the USSR yield commensurate results. Still less can we expect him to know how the Soviet educators themselves feel about the quality of instruction in their schools, as may be determined by an examination of frequent criticisms and complaints in such leading Soviet pedagogical journals as *Mathematics in the School, Physics in the School,* and *Herald of the Higher School.*

Russia: Paragon of Pedagogical Perfection

This little piece seems to be an abbreviated version of an address by the admiral which has gained considerable attention and which was published in a much longer version under the title, "A Size-Up of What's Wrong with American Schools," in the December 6, 1957, issue of the *U. S. News & World Report.* In this long essay, the admiral-turned-educator scrutinizes the errors of American education. Russia gets suitable attention as a paragon of pedagogical perfection. We are told, for example, that "Russia has no teacher shortage, no substandard teachers." As usual, there is the admiral's say-so as support for this statement, but not an iota of proof. He never explains *why* Russia has no teacher shortage. Even more, he shows no awareness that the Russians are concerned with *upgrading* teacher education. Just how can a responsible thinker, particularly one trained under the disciplines of science and of the Navy, come to a conclusion that there are "no substandard teachers" in the Soviet Union? This is as absolute and definitive a statement as one can make. Dogmatism is no substitute for disciplined thinking.

Later on, in the same article, Rickover points out that the Soviet intellectuals, in spite of fetters upon their "right of political criticism," have nonetheless been able to develop a "critical capacity" for scientific work. According to him, "there is evidence that the fetters are well hidden, and that discontent with Russian life is largely prevented . . . by shrewdly catering to the needs of these people both as scientists and as ordinary men and women." The catering consists of excellent facilities and services for scientific research, he tells us. The leading scientists, certainly, get the "catering" treatment. What may cause eyebrows to lift is his statement that the Soviet scientists "are allowed to let their minds roam undisturbed" in the realm of the intellect, a statement which does not take the "fetters" into account. No mention is made of the all-seeing eye of the Communist Party. Is there no interest at all by the Communist Presidium and the lesser lights of the party in the mental machinations of the scientific intellectuals? How "undisturbed in quest of knowledge" were Pokrovsky and Tarlé, the historians; Marr, the linguist; and the numerous other scientists—physical and otherwise—mentioned in Conway Zirkle's and other writings on the hounding of the men of intellect by the Communists? To play down the role of power politics in science in Soviet Russia is to give a highly misleading picture of the situation to lay readers who take the admiral's judgments at face value.

Let us cite some additional tidbits of scientific wisdom as presented by Admiral Rickover. The university courses in science and engineering are "of highest caliber; we can see today the results of all this effort in Sputniks, hydrogen bombs, and other similar achievements." How has he measured these courses from his office in the United States? Whatever evidence he may have for his value judgment—and the availability of such objective evidence may be safely regarded as doubtful—he has kept in his top-secret files. And as to the causal relation between the science courses and the Sputniks, Rickover does not think it important to offer more than his own conclusion as proof. We might wonder what Admiral Rickover may be thinking after the successful subpolar voyages by the nuclear submarines, *Nautilus* and *Skate.* Do these spectacular feats restore his faith in American science? Do they demonstrate the superior status of our educational system? Admiral Rickover surely does not restrain his language when he comes to "evaluate" the Soviet educational work.

No School Problems in Other Countries?

This lack of restraint is evident on every page. "European or Russian" instruction is out of this world: "As the child grows in understanding, the presentation of the subject by the teacher becomes broader and deeper, more information is added and more facts discussed, until in the end the pupil masters the subject thoroughly and it is his for life." All is serene in education in Europe, including Russia, the admiral would have us believe. The only educational problems and difficulties of any significance are to be found in this country, according to him. This he can say on the basis of long-range vision at a distance of from 3,000 to 6,000 miles, without even the benefit of the relevant primary literature. Indeed, we can only regard such opinions as miracles of "educational research."

Enough has been said to show that the admiral is not hampered by facts, scientific method, ordinary logic, quotations from sources, and fair-minded cogitation. He may have fathered the atomic submarine, but in education he has furthered sub-journalism. We have seen how he has utilized this technique in educational theory and in comparative education. More recently, in his address of June 14, 1958, "The Meaning of Your Profession," delivered at the commencement exercises of the Stevens Institute of Technology, he has ventured into the field of educational history. His treatment of Greek and Roman education, like those of the above-mentioned fields, is not encumbered by citations of sources or mention of specific individuals. The question is, which area of education will be the next to benefit from the admiral's analyses? We may wonder if the academic-minded admiral may not set his sights still higher—toward such fields as astronomy, metaphysics, or parapsychology.

It is chastening to think of the many persons who might be influenced by Admiral Rickover's educational thinking. His ready access to mass media gives him a readership of millions. Probably the magic of his name and of his connection with the U. S. Atomic Energy Commission may bring about numerous conversions to his ideas. And very seldom, if ever, does a mass-circulation magazine offer any space for the presentation of views which are not in accord with those of the admiral.

Only one example of an apparent conversion need be mentioned at this time. The June, 1958, issue of *Esquire* carried an article, "The Lesson of Khrushchev's Little Red Schoolhouse," by Dr. Robert Maynard Hutchins. The former chancellor of the University of Chicago starts his article with a quotation from Rickover to the effect that "rightly, Sputnik has from the first been seen as a triumph of Russian education." He next quotes Dr. J. Robert Oppenheimer, director of the Institute of Advanced Study, as describing the American educational system as a "half-empty mockery." To these statements Dr. Hutchins adds his own conclusion: "Both statements are true." Both Rickover and Hutchins typify innocence at home. Without first-hand contact with a foreign educational system in its own setting, without the discipline of research in the relevant primary documentation, they have no hesitation about stating definitive conclusions. This type of thinking is not indicative of the "intellectual power" which Hutchins insists is the basic aim of education. If this be so, it is difficult not to think of Rickover and Hutchins as anti-intellectual.

Admiral Hyman G. Rickover, USN, is chief, Naval Reactors Branch, Division of Reactor Development, U. S. Atomic Energy Commission, and assistant chief of the Bureau of Ships for Nuclear Propulsion. There can be little doubt that he is a great American whose scientific mind and administrative genius have helped create the atomic submarine. Recognition in this field came to him late and against strong opposition. All the fame that is his is richly deserved.

There can be as little doubt, however, that in the field of education the admiral has thoroughly submerged himself. It is time for him to come up for air. What he needs in education is pure-and-simple basic information, the attitude of humility which is prerequisite to scholarship, and the transfer of the scientific method of arriving at conclusions from science proper to education. His keen mind will then have something to offer to those concerned with education and scholarship.

Eminent persons in the sciences, humanities, and other intellectual fields owe it to the public to lead, not mislead, them. The responsibility for transmitting accurate knowledge and objective judgments is a heavy one. Instead of a haphazard dashing off of irrelevant remarks, one should take at least as much pains in preparing a public address as in preparing a scientific or learned paper. Perhaps he should be even more careful with the public than with the profession, because the latter can see through shoddy work while the former may not easily be able to distinguish between a great man's considered judgments and his snap conclusions.

Professor William B. Atkinson in *Science*, March 21, 1958, puts the matter cogently:

> Unfortunately, pre-eminence in science may lend unwarranted weight to the publicized opinions of scientists on completely unscientific matters regardless of the subject on the qualifications of the individuals who are expressing their views.
>
> Despite the propensity of some members of other professional groups to make ill-considered and inaccurate statements to the public press concerning matters in which they have no special competence, we might reasonably expect scientists, who are supposedly trained in the discipline of objectivity, to restrain themselves in this respect. (p. 652)

We cannot over-emphasize the moral obligation of scientists and other intellectual leaders to keep their unscientific and anti-intellectual *alter egos* in check. In point of actual fact, a democratic society has the right to demand of its intellectual elite that it give forth its best in accordance with the "discipline of objectivity" and the discipline of scholarship.

When everybody is an expert on everything, nobody is an expert on anything.

The Problem of Transfer—Then and Now

By WILLIAM CLARK TROW

Perhaps no consideration is more vital to intelligent curriculum revision at the secondary level than transfer of training. Yet the established facts are constantly being overlooked, and the "stale promises of mental training, made by ignorant men and based on dilapidated theories," still shackle school progress.

A PROFESSOR of history recently wrote that in insisting on the academic disciplines for all as the means for training people to think, he might be accused of believing in the transfer of training. A boner like this, coming from one who has set himself up as an authority in educational matters suggests that Wingo[1] is right in his contention that educational reformers should seriously consider the nature of retention and transfer. Confusions of this kind growing out of ignorance of scientific investigations in educational psychology during the past fifty years are no doubt in part responsible for the current resurgence of nineteenth-century fundamentalism.

Flashback—Form and Content

An opinion poll would probably show that there are about as many people in favor of thinking as are against sin. So it may be well to do a little thinking on this subject. First a clarification of concepts. Transfer is the name for the fact that the experience of learning in one situation influences learning and performance in other situations. This influence may be positive or negative; it may facilitate or interfere with subsequent performance. In specific situations, the questions for which answers are needed are: What transfers? To what? Under what circumstances?

The discredited doctrine of formal discipline, on the other hand, was built on the faith that the study of certain subjects in some mysterious way trained the mind. No questions were asked or permitted as to how this took place. There were only believers and heretics.

Throughout history, successive generations have been taught the skills and the knowledge of the facts and their relationships that have enabled them to survive and find some satisfaction in survival. Neither the Athenians nor the Romans, nor even the medieval schoolmen studied the classical languages to train their minds. The content was the important thing, as it was during the revival of learning, and as it was for Spencer in advocating science in his famous essay, "What Knowledge Is of Most Worth?" What, then, produced the strange transition of emphasis from content to form which compelled young people to study languages, mathematics, and science they would never use after school days were over?

One factor was tradition, the cultural lag, by which outmoded forms, education among them, continue to be what they have been. The other factor was the development in Germany of the so-called faculty psychology, which came into being largely as a consequence of a semantic error. The gerund is both verb and noun. It is an easy step from "the man *is thinking*" to *"thinking is* a human faculty." So thinking, attending, remembering, and other "faculties" became thought, attention, memory—separate entities which the phrenologists tried to locate in different parts of the brain, and the formal disciplinarians sought to train by exercising them. The best exercise ground was supposed to be the study of some organized, internally structured system. Greek and Latin, Euclid, and formalized science courses met these qualifications. Not the subject matter but the training was the thing, not the content but the form. Education was to be obtained by indirection.

Fallacies of Formal Discipline

The doctrine of formal discipline was for a long time highly respectable and became so well

MR. TROW *(Alpha Iota 1, Omega 1207) is professor of education and psychology at the University of Michigan.*

[1] G. Max Wingo, "Two Questions for Reformers." *Univ. Mich., Sch. of Edn. Bul.* January, 1958, pp. 49-53.

entrenched that long after it was scientifically discredited it had its supporters. I recall the statement of a college president as late as 1922 which was typical of this view. Speaking to his student body, he sought to banish their doubts about the value of their studies with this pronouncement: "Your work here," he told them, "will build in you a great reservoir of power that you can use in any kind of endeavor in which you may later engage." And why not? Had not statisticians shown that those who went to college earned more money (on the average) than those who did not!

Such learned gentlemen unfortunately overlooked the matter of selection. The bright students were the ones who went to college. And further, in spite of their own reservoir of power, these gentlemen, alas, were guilty of employing the *post hoc ergo propter hoc* fallacy. But what precedes is not necessarily the cause of what follows, as, for example, in the case of the pupils who had studied Latin in high school and subsequently did better in English than those who had not. They also did better before they had studied Latin! The pompous pronouncements turned out to have no more validity than so many testimonials for a patent medicine.

The Period of Scientific Investigation

The story of the researches that shattered the doctrine of formal discipline is too long to repeat here.[2] We can, however, note five areas of investigation:

1. Training in a subject or activity to improve one's performance in it. About this there can be no question. Adequate training in Latin, engineering, or music will improve the learner's performance in Latin, engineering, or music up to the level of his capacity.

2. Training a faculty to improve it. (For faculty the term *mental function* came into use to emphasize the activity and avoid the connotation of separate entities.) This failed on the first attempt, that of William James,[3] who was surprised to discover that he could not improve his memorizing ability (train his memory) by memorizing. Later experiments with other mental functions brought similar disappointing results.

3. Training in school subjects to improve mental functions. This is the key educational problem, but impartial evidence was hard to come by. In the crucial Thorndikian studies of over 13,000 children, no combination of subjects was significantly more effective in raising general mental ability scores than any other.[4]

4. Training in school subjects to improve life adjustment. Because of the difficulties in measuring life adjustment, adequate data are not available on this point. However, support of education by state funds is predicated on the assumption that it will enable people more adequately to manage their affairs as individuals, as members of families, as wage earners, and as citizens. The burden of proof lies with the advocates of the disciplines to show that their formal, indirect approach is more effective in attaining this objective than the common-sense direct approach.

In the hundreds of researches that have been conducted in transfer of training, three definite conclusions recur again and again. The first is that intelligence is positively correlated with transfer, and that successes previously attributed to the effects of formal discipline were largely the consequence of genetic factors.

The second conclusion is that in general the more nearly similar the tasks the greater the transfer. The principle of similarity was enunciated by Thorndike as early as 1913: "A change in one function alters another only in so far as the two functions have as factors identical elements."[5] Woodworth pointed out in 1938 that the term "element" in context clearly refers not to an unanalyzable or even necessarily a simple constituent, and that hence the term "component" would be more appropriate. This is borne out by Thorndike's own explanation: "Chief among such identical elements of practical importance in education are associations including ideas about aims and method and general principles, and associations involving elementary facts of experience such as length, color, and number which are repeated again and again in differing combination."[6] The "general principles" item seems to take care of Judd's important emphasis on transfer by generalization.

The third clear conclusion from the experiments is that methods of learning and instruction are of prime importance. "Habits of procedure" were noted in Thorndike and Woodworth's 1901 experiments,[7] and Woodrow's subjects who were given training in how to memorize (looking for meaningful associations using rhythmical grouping, and so on) made significant gains over those

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[2] See Howard L. Kingsley and Ralph Garry, *The Nature and Conditions of Learning*. Englewood: Prentice Hall, Inc., 1957, Ch. 17; John A. McGeoch and Arthur L. Irion, *The Psychology of Human Learning*. New York: Longmans Green and Co., 1952, Ch. 9.

[3] William James, *Principles of Psychology*. New York: Henry Holt and Co., 1890, vol. I, pp. 666-7.

[4] C. R. Broyler, *et al*, "A Second Study of Mental Discipline in High School Studies." *J. Educ. Psychol.*, 1927, 18, pp. 377-404.

[5] Edward L. Thorndike, *The Psychology of Learning*. New York: Teachers College, Columbia University, 1913, p. 358.

[6] Edward L. Thorndike, *op. cit.*, p. 359.

[7] Edward L. Thorndike, *op. cit.*, pp. 397-99.

who merely practiced memorizing.[8] Similarly, Barlow's subjects profited from developing confident attitudes in problems of analysis, abstraction, and generalization and by learning effective procedures.[9] Such conclusions as these, derived again and again from experiment after experiment, are strangely at odds with the current effort to de-emphasize methods in teaching. We can conclude that if so-called hard subjects are valuable, either it is because their content is important, or because the methods of teaching them are such that the application, the transferable features, are always deftly imbedded in the instruction. Unfortunately, the latter condition cannot be safely assumed.

Stimulus and Response Generalization

There is no doubt about the existence of transfer. Psychologically, it may be viewed as the processes of stimulus and response generalization, concepts growing out of the conditioning experimentation.

Response generalization (the successive stimuli remaining the same) is a gradual modification, in successive trials, of the response which brings the reward or avoids the punishment. More broadly, it can mean a series of successive approximations which bring an improvement of the response in view of its consequences, and which, hence, provide continuing satisfaction (reward or reinforcement).

Stimulus generalization (the successive responses remaining the same) implies a continuing recognition of the identical component among varying concomitants. Instruction is often necessary to aid the learner in discriminating the significant stimulus, in recognizing the same concept or principle in changing surroundings.

Most problems, however, require both—generalization of the stimulus and of the response. A stereotype is the response of an individual who fails to make the necessary adjustment, e.g., when you see this, do that, except that if X is present do something else. Training is practice with the usual combinations of stimuli. Judgment is needed when there are changes in the concomitant variations. A problem is a situation in which the individual is unable to select from his acquired repertory of knowledge, habits, and skills those which enable him to make or to discover the correct response.

In view of the fact that practically all mental processes are involved in transfer, it may be that the term is becoming as obsolete as formal discipline. Let us suppose that a student had acquired some knowledge, skill, or attitude in connection with some school subject, and an occasion later arises when it can be used in another subject, or in an out-of-school situation. If we analyze the possibilities, we can see that his response, i.e., successful "transfer," will depend on:

1. Whether he has an appropriate *set,* which involves matters of interest, readiness, and motivation. (The negative possibility here is displacement of emotional attitudes of aggression, anxiety, and the like.)

2. Whether he *perceives* the identical components, the significant stimuli, and is not distracted by the concomitant variations in the new situation. This has been called stripping the essential process of its adventitious accessories. (The negative possibility is that he may not recognize that here is a situation he has been taught to deal with.)

3. Whether, though, he recognizes the situation, he *remembers* his earlier instruction—the facts, principles, or procedures needed. (The negative possibility is that he has forgotten.)

4. Whether the response to be transferred has been sufficiently rewarded or *reinforced,* so that when it is appropriate he actually makes it. (The negative possibility would be one in which the rewards for making the right response seem not so great as those for not making it.)

5. Whether he can *choose* from among conflicting stimuli when his previous experiences call for differing responses to differing components in the situation. (The negative possibility would be a wrong choice—negative transfer—failure, frustration, and the possible use of irrational defense mechanisms.)

Teaching for Transfer

In view of these complications, it may well be that instead of talking about transfer, we should instead carefully consider the objectives of instruction, and select the content and the methods that are needed to attain them. We can no longer assume that merely dunking all students in the same brew of the disciplines will enable them to think in general. Certainly the more competent they can become in dealing with the facts and relationships of a particular structure—a discipline, a vocation, or pattern of life—the more successful they can become as operators *within* that structure.

But if abilities, attitudes, and skills in general, and ability to think in particular, are to be transferred *outside* the structure, the emphasis must be

[8] Herbert Woodrow, "The Effect of Training upon Transfer." *J. Educ. Psychol.,* 1927, 18, pp. 159-72.

[9] M. C. Barlow, "Transfer of Training in Reasoning." *J. Educ. Psychol.,* 1937, 28, pp. 122-28.

shifted to the other kinds of situations in which they are to be used. Methods of teaching are thus of the essence, not merely "bedside manner," as was suggested by the professor of history in one of his less enlightened moments. Teaching for transfer is one name for it. For example, if geometry is to be studied with the objective of teaching pupils to think, it must be taught in such a way that students habitually employ and require of others clear definitions of concepts, and in approaching a problem inquire into the known facts (what is "given"), and so on, not only concerning spatial relationships but about others as well. And for languages, emphasis must be placed on word study, etymology, and linguistic differences in sound, words, and meanings. Otherwise the transfer is insignificant if not negative, as several studies have shown. With all the uncertainties in the possibilities that were listed, we can hardly depend on the transfer of learning from traditional subjects, even when they are well taught, to enable young people adequately to meet the life situations that confront them.

What Are Our Problems?

The study of mathematics and science is necessary to produce mathematicians and scientists, true enough. This is the direct, content approach. But will the study of algebra reduce the annual slaughter of 40,000 persons on our highways, or will transfer be more likely from courses in driver education? And will five years' study of physical sciences serve to reduce the number of resident patients, now about 500,000, in our mental hospitals, or the 2,500,000 major crimes committed in this country each year? Or will a mental health program be more effective in producing a more satisfactory kind of life adjustment? Can we depend on rigid requirements in Latin or modern languages to break up the hideous partnership of gangsterism with labor and politics, and on the positive side develop competent workers and responsible citizens? Or will a direct approach to social studies and practice in solving meaningful problems cooperatively be a more likely alternative?

The heedless drivers, the mentally ill, the convicts, and the gangsters are products of our schools, and their replacements are now enrolled in them, as are the far larger number whose positive contribution we think we can count on. We should not sell them short with stale promises of mental training made by ignorant men and based on dilapidated theories which provide only traditional form without needed content. Our young people deserve something better than this.

Huron, Ohio, Schools Up-Date the Curriculum

► An account of the manner in which schools of Huron, Ohio, set about up-dating the curriculum is told in the September, 1958, issue of *School Life*, official journal of the U. S. Office of Education.

Among other changes, it is now mandatory for eighth graders in Huron to take either algebra or general mathematics. They also study a full-scale course in general science. Next year, they'll enter high school with two full units of credit, ready for biology and geometry. By the time they're seniors, the high school will have added a fifth year of both science and math.

Speaking for himself, the teachers, the board, and the community, Superintendent R. L. McCormick says: "As far back as anyone can remember—as far back as 1885, the records show—we've been holding our high-school students down to four units of work a year. And all the while we've been accumulating new knowledge in every field and adding new courses to our curriculum—modern languages, home economics, industrial arts, vocational subjects, fine arts. We've finally asked ourselves, what's the point of spreading an educational feast before our students and then putting them into a 16-unit straitjacket so they can't eat?"

Among developments: A program calling for identification of all talented children no later than the seventh grade, then "pouring it on." Six consecutive years of a foreign language to develop real fluency. Lengthening the school year to thirty-seven weeks and the school day from six to seven hours, so that students can carry five units a year. Eventually, twenty-four units of work for graduation.

Three of the officials at Huron who helped work out the program were asked to confer with the U. S. Office of Education staff and meet President Eisenhower.

Teaching College Courses in High School

► A Columbia University professor who has had experience in teaching college-level science courses to high-school students has put himself solidly in the young scholars' corner.

"The amazing thing about even the average high-school student," says Lloyd Motz, associate professor of astronomy at Columbia, "is that he can go far beyond what is expected of him by his high school and grasp the most advanced theories of pure science. . . . The difference between the average student and the superior one is that while both can understand the material, the gifted student is able to correlate it and often show new synthesis."

* * *

Men are never so likely to settle a question rightly as when they discuss it freely.

—Macaulay

Emphasize Tasks Appropriate for the School

A student of the behavioral sciences identifies six kinds of learning best undertaken by the high school. Other kinds should be left to other agencies, he suggests.

By **RALPH W. TYLER**

THE spectacular success of the American high school in the past half century is a major source of present difficulty. Because it has attracted a high proportion of American youth, because most high-school students like the school and like the work they are doing there, and because high-school graduates have learned things which easily differentiate them from those who have not attended high school, the public thinks of the high school as the logical institution to assume all the significant responsibilities for youth. Whatever the educational demand of the moment —driver education, elimination of juvenile delinquency, "air age" education, swimming and other sports, specific vocational skills—the American public views the high school as not only capable of assuming successfully almost any conceivable task of education or training but also as the proper agency to undertake any such job that seems important to some group. No clear basis which the high school can use in selecting the tasks it should undertake is commonly recognized in America.

Discussions of this problem are frequently confused by arguments regarding the values of learning to drive safely, of wholesome recreation, of appreciating the contributions of aviation, of learning to swim and to participate in other sports, and of acquiring specific occupational skills. These are not the primary issues facing secondary education. Many of the jobs the high schools are urged to do are worthwhile and many of them the schools can do effectively. The essential point to be made is that the total educational task involved in inducting youth into responsible adulthood is far too great for any one of our social institutions to undertake effectively. Only by the fullest utilization of the potential educational efforts of home, church, school, recreational agencies, youth-serving organizations, the library, the press, motion pictures, radio, television, and other formal and informal activities can this nation meet its educational needs. Modern society is highly complex and requires of its members knowledge, skills, attitudes, and practices of a range and level far beyond those required a generation ago. And yet, a baby born today is indistinguishable from babies born at the birth of our nation. It is only through education—that is, through things learned after birth—that man becomes competent to live in a modern world rather than in a primitive culture. Hence, the educational task is a tremendous one which can only be met by the enlistment of all relevant resources. Failure to encourage and to help other institutions to bear part of the responsibility inevitably weakens our total social structure and reduces the effectiveness of our total educational achievements.

MR. TYLER *(Zeta 1089) is director of the Center for Advanced Study in the Behavioral Sciences, Stanford, Calif.*

Encourage Other Educational Agencies

Yet this is what we do when we in the schools assume responsibilities which can be discharged by others. Reduced working hours give many adults time to teach driving, swimming, and the like. Churches and other institutions are seeking channels through which to serve youth. Many industries are able to provide on-the-job training. Few, if any, communities adequately utilize the educational potential available outside the school. Instead, they waste the precious resources of the school on jobs which others can do. It is clear that two things are necessary: We need to organize community understanding and leadership for a wide attack upon the total educational job and we must clearly differentiate the educational responsibilities of the school from those of other agencies.

In identifying the tasks which are particularly appropriate for the school, its special characteristics need to be carefully considered. One major feature of the high school is the fact that its teachers have been educated in the arts and sciences. Frequently this characteristic is played down or overlooked because subject matter has often been viewed as dead material—a collection of items to be remembered but not a vital in-

gredient in life itself. Too frequently we have failed to identify the constructive role of the arts and sciences in education. Properly understood, the subject matter of these fields is not dead but can be the source of a variety of understandings, values, abilities, and the like which aid the student in living more effectively and more happily. The school should be drawing upon these resources to enrich the lives of the students. Our effort should not be to make the classroom more like life outside the school but to make life outside the school more in harmony with the values, purposes, and knowledge gained from the classroom.

This viewpoint emphasizes college and university education in the arts and sciences as a primary resource for the high school to use, but this is a valid position only insofar as the contributions of the arts and sciences are used as vital means of learning and not as dead items to recall. This can be done and often is. All of us can think of illustrations of the way in which each of the major fields of science and scholarship can provide things that open up avenues for living. In science, for example, the kinds of problems with which the scientist deals in seeking to understand natural phenomena and to gain some control over them, the methods that scientists use for studying problems, the concepts they have developed for helping to understand the phenomena with which they deal, the data they are obtaining about various natural phenomena and the generalizations which they have developed for relating factors and for explaining phenomena, all give us tools for understanding our natural world and for seeking to gain more control over it. They also give us a basis for continuing our own study and learning about natural phenomena long after high school.

The Uses of History

In history, to take another example, we find bases for understanding developments which take place over periods of time. History gives us methods for studying problems which involve the time dimension and the interrelations of political, economic, social, and intellectual life. History gives us concepts with which to think about and to understand social change. It gives us data and some generalizations. It can help the high-school student to be at home in a world of change and development and to take an active understanding role in this world.

The other subject fields can furnish similar examples of problems, methods, concepts, and generalizations so important in finding meaning and effectiveness in life. When we build the high-school curriculum, the arts and sciences need to be treated as vital means of learning. They must be examined carefully for their possible contributions rather than viewed as matters of rote memorization. Furthermore, the education of teachers in these fields should be effectively utilized. All too often we have employed teachers in jobs that do not draw upon their education. The task of the school is partly defined by this important characteristic: the employment by the high school of teachers who are educated in the arts and sciences.

The School's Unique Resources

A second significant characteristic is the skill of the high-school staff in facilitating the learning of students. By and large, teachers are effective in teaching. Their training and experience have been largely focused on it. In addition to these characteristics of the teaching staff, there are three other features of the high school to be considered in selecting appropriate educational tasks. The school has special types of equipment and facilities, such as libraries and laboratories. The arrangements of enrollment and attendance in the high school permit the organization of learning experiences over a considerable period of time. The high school has built a tradition commonly recognized and respected in the community. This tradition includes such elements as impartiality, objectivity, and concern for human values. These are very important characteristics not possessed in equal degree by other social institutions. The kinds of jobs the school undertakes should primarily be those which depend upon these characteristics, since they provide for unique contributions.

Considering these features of the school, several kinds of educational tasks are recognized as particularly appropriate. One of these has already been mentioned, namely, learning, which is based substantially upon the arts and sciences. A second is the learning of complex and difficult things that require organization of experience and distribution of practice over considerable periods of time. A number of illustrations will quickly come to mind. Probably reading and mathematics are most commonly recognized as fields in which the basic concepts and skills require careful organization, beginning with simple materials and moving gradually to more complex matters over the years of elementary and secondary school. Clearly, this kind of learning is uniquely possible in the school rather than in the less well-organized conditions of other agencies.

A third kind of educational task appropriate

for the school is to provide learning where the essential factors are not obvious to one observing the phenomenon and where the principles, concepts, and meanings must be brought specially to the attention of the learner. Thus the scientific concepts and principles which explain the growth and development of plants are not obvious to the observer of plants or even to an uneducated farm hand. The school can more effectively provide for this learning than can the home or the job.

Providing Out-of-Ordinary Experience

A fourth kind of learning appropriate for the school is where the experiences required cannot be provided directly in the ordinary activities of daily life. Geography and history are excellent illustrations of fields where daily life experience alone is not likely to provide sufficient insight into historic matters and matters relating to places far removed. If young people are to develop an understanding of history, it will require the attention of a specialized agency able to provide materials serving to give vicarious experiences and to organize them effectively. The same is true for geography. We cannot depend entirely upon the informal experiences of daily life to provide these kinds of learning.

A fifth kind of learning particularly appropriate for the school is that which requires more "purified experience" than is commonly available in life outside the school. Students may learn something of art, music, literature, or human relations from the examples commonly found in the community, but where these fall far short of the best, the students have no chance to set high standards for themselves. The school can provide examples for study and enjoyment which represent the best available.

A sixth kind of learning particularly appropriate to the school is that in which reëxamination and interpretation of experience are very essential. Our basic ethical values are commonly involved in the daily experiences of youth. Questions of justice, fairness, goodness arise again and again on the playground, in the marketplace, and elsewhere. It is not likely, however, that sheer contact with these ideas will be enough to help the individual youth to develop values that are clearly understood and effectively utilized. The school can provide opportunity from time to time to recall these experiences, to examine them, and seek to interpret them, thus clarifying the meaning of values as well as helping youth to appreciate them more adequately. In the realm of ethical values this type of responsibility will be shared by the home, the Church, and youth organizations, but in the realm of esthetic values it is probably true that only the school is likely to provide the opportunity systematically.

These six kinds of learning which are peculiarly appropriate for the high school ought to be strongly emphasized in its program in contrast to other learnings which can be provided by other agencies. There are, of course, educational jobs which are good in themselves but do not require the particular conditions that the school provides. When the school undertakes these tasks, it must either neglect other important things or attempt more than it can do well, spreading itself too thin, and not achieving as effective educational results as it should. Concentrating its efforts upon the educational job which the high school is uniquely fitted to undertake and encouraging other community agencies in their responsibilities will greatly raise the educational level of the nation.

Toward Entrenching Driver Education

► A recommendation which, if generally written into law, would entrench driver education as a high-school course was adopted by a group of educators and safety officials attending the Third National Conference on Driver Education on the Purdue University campus in September.

The conference group asked that teen-agers under 18 be prevented from obtaining driver's licenses unless they have completed an approved driver education course in high school. In the latter case, 16-year-olds could apply for a license and, if they passed the state-approved test, would become full-fledged drivers.

At present thirty-five states license drivers beginning at age 16. Conference participants, who came from forty states, agreed to work for acceptance of the recommendation and to urge that laws be changed regarding minimum legal age for securing a driver's license.

The conferees also demanded that driver education teachers in today's schools be better prepared, recommending that they hold a bachelor's degree from an accredited institution of higher learning, that they have the basic qualities necessary to effective teaching in other fields, and that they complete a minor in driver and safety education.

The group also specified that driver trainees in the high school should spend a minimum of thirty class hours of sixty minutes each in classroom instruction and at least a fifth as much time in practice driving.

The Purdue conference was sponsored by the National Commission on Safety Education.

* * *

Nothing fails like failure.

—Ever *and* Anon.

THE MEANING OF 'GIFTEDNESS'—
An Examination of an Expanding Concept

The authors describe an ingenious study using measures of I.Q. *and* of creativity. It emphasizes the fact that neither I.Q. nor teacher preference identify all students of high potential and suggests the possibility of a much greater expansion of the concept of giftedness.

By **J. W. GETZELS and P. W. JACKSON**

WHEN a concept becomes the focus of critical concern it is almost inevitable that its original meaning will simultaneously be expanded and differentiated. The concept of "giftedness" is, of course, of critical concern at this time, and the purpose of this paper is to examine the transformations this concept is presently undergoing and to suggest some additional modifications in its application.

"Giftedness" as related to children has most frequently been defined as a score on an intelligence test, and typically the study of the so-called gifted child has been equated with the study of the single I.Q. variable. Involved in this unidimensional definition of giftedness are several types of confusion, if not outright error. First, there is the limitation of the single metric itself, which not only restricts our perspective of the more general phenomenon, but places on the one concept a greater theoretical and predictive burden than it was intended to carry. For all practical school purposes, the term "gifted child" has become synonymous with the expression "child with a high I.Q.," thus blinding us to other forms of excellence. Second, within the universe of intellectual functions themselves, we have behaved as if the intelligence test represented an adequate sampling of *all* these functions. For example, despite the growing body of literature concerning intellectual processes which seem closely allied to the general concept of "creativity," we tend to treat the latter concept as applicable only to performance in one or more of the *arts*. In effect, the term "creative child" has become synonymous with the expression "child with artistic talents," thus limiting our attempts to identify and foster cognitive abilities related to creative functioning in areas other than the arts. Third, there has been a failure to attend sufficiently to the difference between the *definition* of giftedness as given by the I.Q. and the variations in the *value* placed upon giftedness as so defined. It is often taken for granted, for example, that the gifted child is equally valued by teachers and by parents, in the classroom and at home; that he is held an equally good prospect by teachers and by parents to succeed as an adult; and that children themselves *want* to be gifted. It can be demonstrated that none of these assumptions regarding the value of the gifted child can be held without question. Empirical data related to these assumptions indicate that the gifted child is *not* equally valued by teachers and by parents, in the classroom and at home; he is *not* held to be an equally good prospect by teachers and parents to succeed as an adult; and children themselves do *not* necessarily want to be gifted, at least not in the traditional sense of the word.

Despite its longevity, there is nothing inevitable about the use of the I.Q. in defining giftedness. Indeed, it may be argued that in many ways this definition is only an historical happenstance—a consequence of the fact that early inquiries in this field had as their context the classroom and its attendant concern with academic progress. If we moved the focus of our inquiry from the classroom setting, we might identify qualities defining giftedness for other situations just as the I.Q. did for the classroom. Indeed, *without* shifting our focus of inquiry, if we only changed the original criteria of learning, we might change the qualities defining giftedness even in the classroom. For example, if we recognize that learning involves the production of novelty as well as the remembrance of course content, then measures of creativity as

MR. GETZELS *(Zeta 1600) is professor of educational psychology and* MR. JACKSON *(Beta 3867) an assistant professor of educational psychology at the University of Chicago.*

well as the I.Q. might become appropriate in defining characteristics of giftedness.

A research project, under the direction of the authors, is now being conducted at the University of Chicago in order to provide empirical data related to the considerations outlined above.[1] As subjects of our research we have used a group of approximately 500 adolescents attending a Midwestern private school. The grade range covered by our group extends from the end of the sixth grade to the end of the senior year in high school. Because of the broad purpose of the research, we have inaugurated an extensive testing program involving the assessment of traditional qualities, such as intelligence and psychological health, and including attempts to assess less conventional dimensions such as creativity, morality, and the like. The study to be discussed here is but one small aspect of the larger investigation and concerns specifically a description of two of our experimental groups: one which we shall label the "highly intelligent" group, and the other the "highly creative" group.

Two Groups Mutually Exclusive

Our "highly intelligent" subjects were defined as those who were in the top 20 per cent of the sample population on conventional I.Q. measures, but who were *not* in the top 20 per cent on measures of creativity. Our "highly creative" subjects were defined as those who were in the top 20 per cent of our sample population on measures of creativity, but who were *not* in the top 20 per cent in I.Q. The groups comprised twenty-eight and twenty-four subjects respectively, with approximately an equal proportion of boys and girls in each.

Limitation of space does not permit a complete description of the instruments included in the creativity battery. However, an adequate understanding of the way in which the term "creative" is used in the material to follow requires at least passing comment concerning these tests.[2] Most briefly, all of the tests in the creative battery involved facility in dealing with verbal and numerical symbol systems, and object-space relationships. Some instruments called for rapid verbal associations to stimulus words; others called for the ability to structure quickly an incomplete or distorted perceptual stimulus; still others required remote, or clever, or original responses to complex verbal situations (e.g., supplying last lines to a fable). In one test the subject was to respond to a complex paragraph involving numerical values by suggesting all of the mathematical problems which could be solved with the information in the paragraph.

It should be noted that we did not include in our experimental groups those children who were high in *both* creativity and intelligence, and there were many such individuals. Our attempt was to isolate the two qualities under study from each other as much as possible in order to examine the relative contribution of each to the functioning of the child. Those individuals who excelled in both areas are the objects of further investigation still in progress.

Having identified our two experimental groups, we compared them to each other and to the population from which they were drawn on a number of relevant variables, including: school performance as measured by standardized verbal and numerical achievement tests appropriate to each grade level; teacher preferences as measured by teacher ratings of the pupils on how much they "liked to have them in class"; the preferences of the children themselves for personal qualities they would like to possess; the children's perception of the personal qualities they believed would lead to success in adult life and those they felt teachers would most prefer in children. In addition, the children were asked to write four-minute stories in response to six pictures flashed on a screen for twenty seconds each. An examination was made of the differences in the writing "style" of the two groups.

Experiment Subjects Equal in Achievement

The results of these comparisons may be summarized as follows:

First, with respect to school achievement, despite a difference of twenty-three points between the *mean* I.Q.'s of the two groups, they were *equally* superior in school achievement to the student population as a whole.

Second, when asked to rate the children on the degree to which they would like to have them in class, the teachers exhibited a clear-cut preference for the high I.Q. child. The ratings given the high I.Q. group were significantly higher than those of the total student body; the ratings given the high creativity group did not differ significantly from those of the total student body. This occurred despite the fact, as we have seen, that *both* the high I.Q. and the high creative groups

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[1] This project is supported by a grant from the U. S. Office of Education.

[2] Some of these instruments were adapted from the more inclusive test batteries of J. P. Guilford, professor of psychology at the University of Southern California, and R. B. Cattell, professor of psychology at the University of Illinois. Others were developed by the staff of the research project. A more complete description of these instruments is given in J. W. Getzels and P. W. Jackson, "The Highly Creative and the Highly Intelligent Adolescent: An Attempt at Differentiation," paper read at the American Psychological Association Meetings, Washington, D. C., August, 1958.

were *equally superior* to the other students in school achievement.

Third, comparing the personal aspirations of the children as reflected in the personal qualities they would like to possess, we find that the creative child himself rates high marks, I.Q., pep and energy, character, and goal-directedness *lower* than do members of the highly intelligent group, and that he rates wide range of interests, emotional stability, and sense of humor *higher* than do members of the highly intelligent group. The last item, sense of humor, is particularly noteworthy since the value which the creative child puts upon this quality so far exceeds the ranking it receives from high I.Q. children as to make it one of the outstanding differences between the two groups, and indeed sets the creativity group apart most sharply from *all* our other groups.

Fourth, the groups show distinct differences in the degree to which they aspire for "success" in adult life. The high I.Q. child desires to possess those qualities *now* which he believes will lead to success in adult life; the creative child does not seem to use this remote goal as criterion in the selection of his present aspirations.

Fifth, the relationship between the child's own personal aspirations and those qualities which he believes teachers prefer is quite different for the two groups. The high I.Q. child holds to a self-ideal which is consonant with the one he believes teachers will most readily approve; the self-ideal of the creative child is not only *not* consonant with what he believes to be the teacher approved model but shows a slight *negative* correlation with such model.

Sixth and finally, in their written responses to our six stimulus pictures, the creative students exhibited a degree of imagination and originality (not by any means the same as correct grammatical construction) unmatched by the high I.Q. students. Compared to the latter group, the creative students produced stories which seemed to "spring from" the stimulus rather than appeared to be "tied down" by it. Their stories made abundant use of humor, novel situations, and unexpected endings. They seemed to "play with" the picture stimulus for the pleasure of invention rather than "labor" the stimulus in order to find the "correct" theme.

Some Important Implications

There is, it seems to us, a consistency and unity even in these preliminary findings which may have important implications for defining and identifying so-called gifted children in the educational setting. We believe the high academic performance of our creative children coupled with the related lack of recognition which they may receive from teachers points to the core of the problem of expanding the present conception of "giftedness," and of breaking the bonds that the I.Q. has on this concept in the school situation. The personal qualities of such presently neglected groups as our creatives which tend to estrange teachers from them may very well derive from the very neglect which these children suffer in the educational setting. With respect to our creative students, for example, the quality of "disillusionment" which appears to be reflected in the discrepancies between their personal aspirations and the aspirations they believe to be valued by teachers and by society in general may be a function of just the neglect to which we have been pointing. Despite their exceptional talents, they may miss identification by the usual I.Q. instrument; and despite their superior achievement, they may fail to gain the same personal preference from teachers that the high I.Q. children seem to have. We venture to suggest that a consideration of these discrepancies may deepen our appreciation at once of the need for expanding the concept of giftedness in the school setting and of the very real difficulties involved in such expansion.

A Challenge for Educators, Researchers

Once we set a precedent by allowing an exception to the practice of labeling only high I.Q. children as "gifted," the possibility of expanding the concept to include other potentially productive groups becomes a genuine challenge to both educators and research workers. The not inconsiderable dangers inherent in the possibility of expanding the concept to a point where it becomes meaningless seem to us to be compensated by the possibility of increasing the effectiveness of our education for *all* children.

"Individual differences in children should be cultivated, not cured or tolerated. . . . [Wide] variations exist in children the world over and are equally prevalent regardless of the method of teaching employed. Literally, the more you teach children the more unlike they become."

—*Willard C. Olson, dean, The University of Michigan School of Education*

"The uses of philosophy lie in the critical insight it provides into those things with which science cannot deal. But when science is able to take a problem out of the hands of philosophers and provide the verifiable answer, seven hosannas are offered up in Heaven."

—Ashley Montagu in *The Cultured Man*

The Education of Youth In the USA and the USSR

By **ARTHUR HENRY MOEHLMAN**

IS the education of youth in the USA and/or the USSR equal to the challenge of the times? Suddenly, the role of the universal education as the paramount activity vital to the survival and progress of any human culture has been dramatized by the coming of the artificial earth satellites and the race for the conquest of outer space. This big shift of universal education to the apex of power in any culture's pyramid of basic activities has been evolving for the last hundred years.

In the past we operated under the assumption that elite education for a ruling few and increasing literacy for the obedient mass in the transmitted wisdom of the past was sufficient for survival and perhaps progress. The assumption is now dangerously false. Conditions are no longer fixed for many human lifespans of pastorally slow recurrence insulated by seas and mountains.

Today youth must be educated for a novelty of conditions. We must transmit the best and wisest in the massive human cultural inheritance. We must cut out the "inert ideas" and the crippling crystallizations. At the same time we must nurture the talents of each individual personality or ego to adventure toward the vast future of humankind. This may sound like a type of romantic idealism. However, it is critical and logical realism required by the spirit of our times *(Zeitgeist)* and our world picture *(Weltbild)*.

We cannot afford to waste the talents of any of our youth or people. The pressure of increasingly complex societies mounts against the total creative capabilities of their populations. Furthermore, we will have to balance general liberal education and specialized education, since we cannot identify the specific skills needed ten or twenty-five years from now. In other words, the quality of its education is the most strategic weapon for any country in meeting the challenge of its time. If any country dares to value security, wealth, or military power above excellence in the education of all its people, it will end by losing everything.

It would be desirable to review here the contrasting historical perspectives in Russian and American education, so important to full understanding. Unfortunately, space limitations prevent it. We can, however, consider the contrasting aims of education which history accounts for.

Aims of Education in the USA

The United States has a cultural history which is unique. We are new men and new women in a new world who created a culture based upon the treasures built up by both the Atlantic and Pacific communities of culture. These we hammered out on the anvil of time into a completely new approach to life. The American Dream expresses a philosophy and faith which has been largely realized through the growth of universal education. We believe that the living of every individual can be both bettered and ennobled in every way. Our outstanding values are those of democracy, of equality of opportunity for every man and woman and child, of the five freedoms: freedom from want, freedom from fear, freedom to worship, freedom to communicate, freedom to learn the truth. These value choices are implemented by universal education (everyone should be educated to the fullest extent of his capabilities although people's capabilities are not equal); separation of church and state; equal justice under the constitution; a dynamic mass production linked with science; and, above all, reverence for the sanctity and values of every human life. In the United States' pattern of universal education, we believe that if each individual is given a chance to follow his own particular talents and abilities and make his own choices of a career freely that the good life can be achieved by all. We believe in pursuit of an excellence in education directed toward truth, beauty, health, adventure, and peace, but neither the Seven Cardinal Principles nor the Children's Charter restricts our future.

MR. MOEHLMAN *(Epsilon 1054) is professor of the history and philosophy of education at the University of Texas. He has traveled widely in Europe, Asia, Africa, and the Americas. One of his best known works is* Comparative Education.

Let's contrast this with the principal aims of the Soviet school system:

1. To give the pupil a thorough grounding in the fundamentals of the sciences dealing with nature, society, and human intellect, training him in a materialist world outlook.

2. To provide the young generation with knowledge and understanding of the fundamentals of socialist production, training students to link up that knowledge with practical problems of socialist construction.

3. To foster in the growing generation firm moral convictions, educating them in a spirit of boundless affection for, and fidelity to, their socialist mother-land in a spirit of socialist humanism, collectivism, and international solidarity, teaching them to take a socialist attitude toward their work as a public property and training them for conscientious discipline.

4. To provide adequate physical training with a view to bringing up a healthy and bouyant generation.

5. To provide aesthetic education, teaching the children to understand and appreciate art, cultivating good taste, and encouraging their artistic abilities and talents.

Results, by Expending Money and Effort

In other words, the Russians are aiming toward materialistic science, production, discipline, physical training, and aesthetics. And they are achieving these aims rather effectively (proving it in the Olympics and in producing earth satellites) *because they are willing to expend a great deal of money and effort upon education.*

The Russians do educate masses of people in elementary education, but if one observes closely, it is apparent that they begin to weed out and take relatively few in secondary education. Secondary students are allotted certain slots predetermined by the totalitarian government. The USSR has transplanted the old 19th century German approach in specialized secondary schools, especially the *Oberrealschule*, which emphasized the real or material subjects—foreign languages, mathematics, science—in contrast to either the classical or modern language *(Gymnasium* or *Real Gymnasium).* The Russians gave all of this a legal basis in Article 121 of the 1937 constitution of the USSR, stating that "Citizens . . . have the right to education . . . which is insured by universal and compulsory education; by free education up to and including the seventh class; by a system of state stipends for students in higher educational establishments who excel in their studies; by instruction in school being conducted in the native language and by organization in the factory, state farm machine and tractor stations, and collective farms of free vocational, technical, and agronomical training for the working people."

The schools are a state monopoly and in order to have uniform standards, planning, and material provision their instruction is all scientific and materialist. The church is Greek Orthodox and completely under state control, quite different from our idea of separation of church and state. Universal free education is supposed to be compulsory for ten years in the city centers, starting at age 7. The total time is much less in the rural areas. The Soviets say that they enable students to climb the educational ladder by merit alone. One must observe that the Party has considerable control over this matter.

The Soviet Union's philosophy and approach to education contrasts markedly with ours in its view of the child, the universe, and the teacher. We believe that each individual should have freedom of choice and that learning takes place when young people have an opportunity to help determine, through our guidance and counseling techniques, the direction their education is taking. Furthermore, we think the child should participate extensively in a wide range of activities—intellectual, social, economic, political. Each state has its own educational law and authority; local responsibility is basic. In contrast, the Soviet education is centrally controlled and each individual is moved into certain slots on the basis of central planning. The prevailing climate of opinion is materialist, atheistic, and paradoxically dominated both by pride in the inevitable victory of Communism and fear that Russia is surrounded by forces which may possibly destroy her.

Internal Criticism of US and USSR Education

Critics of Soviet education point to a tendency toward bulkiness—trying to stuff the students with everything. Both medical and educational authorities have objected.

The academician A. N. Krylov made a slashing criticism of the specialists who tried to put their twenty-five years in studying a subject into their own presentation to a student who only has a small part of a year to devote to the course. Krylov ridiculed the textbooks and syllabi which force students to cram their memories with thousands of disconnected facts. He compared the system with an old-time practice of Moscow merchants who fattened fowls at Christmastime by hanging them in bags sewed up to the neck and stuffing them with food.

Design in planning of courses and lessons in

the Soviet Union is a chain-of-command operation. The Ministry of Education works in cooperation with the Academy of Pedagogical Sciences to produce school syllabi, which are printed by the publishing establishment of the ministry, together with textbooks. A new syllabus is printed in booklet form for each subject each year and is compulsory for every school.

The routine seems to be one of setting up a curriculum in accordance with the Party's latest directive; adapting the syllabi to the curriculum; editing and in some cases rewriting textbooks to suit the syllabi. The teacher receives a syllabus which in general has two parts, one called an "Explanatory Note" which gives the purposes of the course, together with suggestions which are really directives to the teacher. Part two is the syllabus itself, which indicates in detail the topics to be covered, together with the class hours for each group of topics, often with an estimate of the hours of homework to be required.

The Soviets have had a little trouble with their textbooks. For example, there was a complaint in 1955 that in Odessa the students couldn't purchase textbooks but that at the same time tons of textbooks were in a damp Odessa railroad warehouse. Prices of textbooks are low, but there is a shortage and therefore Soviet school books are often mentioned as black market items. In 1953 the Soviet newspaper *Pravda* criticized the Ministry of Education, stating, "Instead of replacing obsolete textbooks with new high quality textbooks which would serve schools for many years, the Ministry of Education constantly makes all kinds of changes in them and adds supplements, a practice which grossly violates the stability principle."

Stabilized—Since 1888

Some textbooks are really quite well stabilized. Kiselev's algebra, first published in 1888, is the most widely used algebra in the USSR and has had little revision.

In the design of courses and of lessons there is a background which must be sketched in, that of polytechnization and of the *internat* or boarding school versus the family and regular schools. "Polytechnization of schools" really has the aim or reducing non-conformity and preventing challenges to central control. It is also aimed at a very definite allergy to physical labor which seems to appear in Soviet students who would like to go on to higher education.

In 1956 Khrushchev, at the Party congress, pointed to a certain rift between schools and life and how the graduates of the schools were unprepared for work. He complained that there was no really practical utilization of polytechnic education. Khrushchev started off by proposing that the state take a larger role in the upbringing and nurture of children. Remember that in the Soviet Union both parents in families are usually employed. Khrushchev, therefore, felt that the children of working parents and also war widows didn't have enough supervision and they would be better off in a boarding school or *internat*. He outlined the whole procedure in some detail for building *internats* in wooded areas in the suburbs or in the countryside, and spoke of the need for good teachers as "engineers of the soul."

Added Together, What Does It Mean?

All of this is very, very, revealing. When we add it together, what does it mean? An official article let the cat out of the bag by saying that there really was "groundless concern" on the part of certain educators and parents that the new boarding schools would cut down the rights of parents and be a barrier to a strengthening of the Soviet family. It implied that the existing system of upbringing (by parents and regular schools) could not fully cope with creating builders of the Communist society among the new generation. Fewer youth will be permitted to go on to secondary and higher education; the rest are going to work; and the family is going to be downgraded still further.

The history of education in the USSR has been marked by a series of rather radical changes and overhauls. As noted before, this characteristic continues. School teachers have an abundance of problems to confront even in a well-organized, stable pattern of education. Rapid innovations create all sorts of fears, difficulties, and repercussions. The minister of higher education in the USSR interpreted the decisions of the Communist Party in 1958. He insisted that entrance opportunities to the university depended upon the recommendations of Party organizations such as Komsomols (Young Communist League) and upon committees which now included representatives of the Party and Komsomols in addition to the director and professorial representatives of the institution of higher education. Above all, he emphasized that a two-year Practicum or period of labor in industrial and economic production of the USSR was essential and would give first opportunities for higher studies. Furthermore, the privilege of higher education without an entrance exam would be withdrawn from many categories of students. At the same time, he noted that as

(Continued on page 85)

Russia's Secondary Schools

(A Photographic Study by M. L. Miller)

Photographs on pages 81-84 were taken in the USSR in early September by Murray Lincoln Miller, director of audio-visual education at Illinois State Normal University. With 70 other Americans, Miller toured Russia for five weeks under the auspices of the Comparative Education Society headed by William Brickman and Gerald Read. Miller took some 2,000 black and white and color photos, plus 3,000 feet of movie film, assisted by able translator Helen J. Shulak, a teacher at Port Washington, Long Island, N. Y.

Like other educators visiting Russia, the Comparative Education group was tremendously impressed with, and somewhat frightened by, the Soviet willingness to devote so large a share of the state's resources to education. Russia is determined to outstrip America economically and scientifically, and her prime tools are the schools.

Secondary students like this young Russian begin school at 7, graduate at 17. About 30 per cent go on to higher education.

Miller discounts Khrushchev's recent announcement that the USSR is giving up the ten-year school experiment in favor of the old eight-year program. "The Russians would like to see us relax our efforts to improve American education," he says.

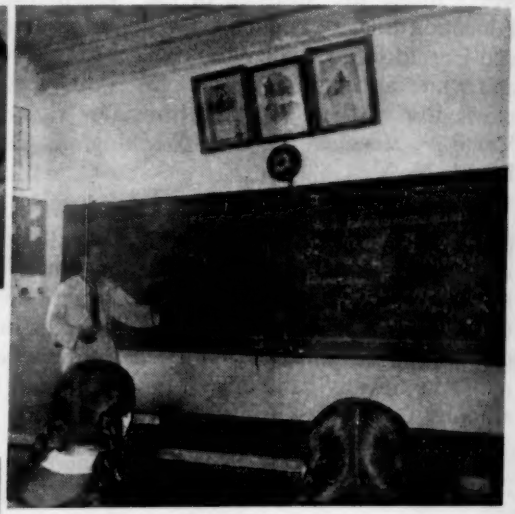
The Lenin Library main reading room is dominated by this enormous world map, suggestive of Russia's world-straddling ambitions. The library, located in Moscow, contains some eight million volumes and attracts scholars from the entire Soviet Union. (Statue in front of map is the ubiquitous Lenin.)

This school poster, photographed in Tashkent, bears the word "peace" in eleven different languages. Russians talk much about peace and ask why America wants war. Miller reports that they openly boast that they will achieve world domination by out-producing the West.

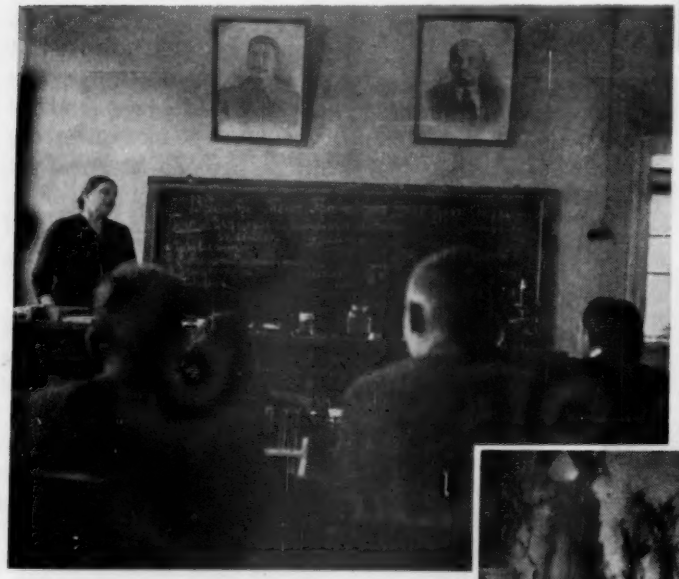
All Russian children study at least one foreign language, beginning in second grade. In outlying republics, they study the native language, Russian, and one foreign language. Fifty-five per cent elect (or are pushed into) English, for English and American achievements are much admired. Miller reports that nearly half of Russia's scientists read our scientific journals, and their abstracting service is so good that sometimes they read them before we do.

ABOVE—*A student, age 12, writes perfect English and Lenin beams approvingly overhead.*

RIGHT, ABOVE—*A teacher plugs in foreign language tapes requested by language students studying in different rooms with the aid of earphones.*



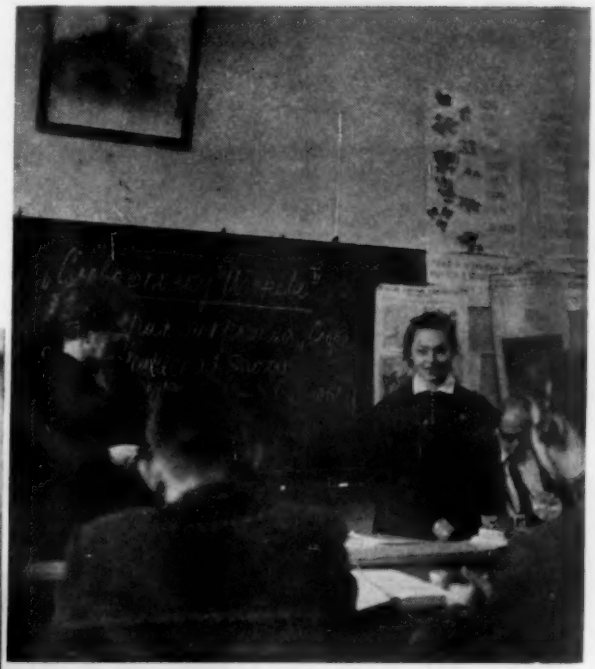
ABOVE—*Pig-tailed school girls in a secondary school of Uzbekistan (note teacher's native costume) study calculus. Men teachers compose about the same fraction of the total teaching force as in America.*

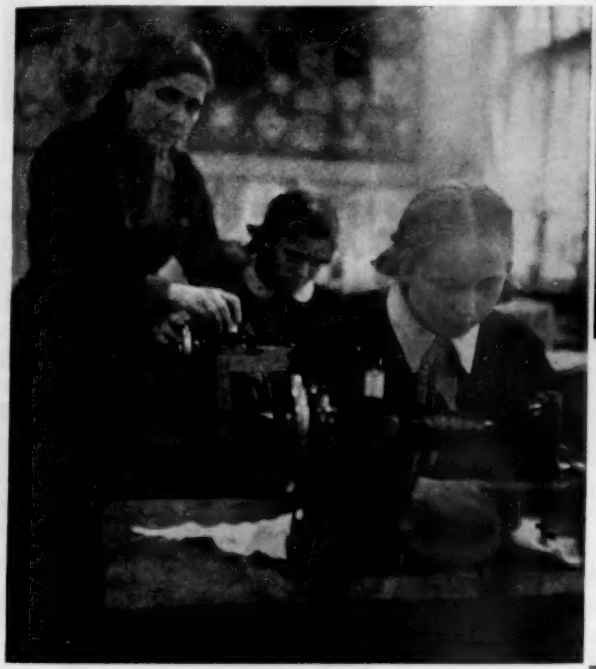


LEFT—*A teacher uses the blackboard, specimens, and lecture in biology. (Note photo of Stalin. Revisionists have even missed Trotsky on occasion, according to Miller, who saw his photograph in two schools.)*

RIGHT—*Biology displays prepared by students. Much science work is in the field, children traveling everywhere by bus. Elaborate displays and models—including operating planetaria and replicas of the Sputniks—are then built by pupils.*

RIGHT—*A Moscow girl helps teach hard-of-hearing and deaf children to lip-read. Special education for the handicapped is adequately handled in separate schools here, says Miller, but the Russians refuse to admit that handicaps may be lifelong. Attempts were being made to restore the hearing of these children with heat treatments. The Russians also think dullness is of environmental origin and retard children no more than three years.*





BELOW—*Recreation program in the Pioneer Palace at Leningrad. This showplace of 320 rooms was built by the Empress Elizabeth, daughter of Peter the Great. It is now given over entirely to the Young Pioneers, a select group, many destined for Party leadership. They spend half their day in a great variety of extra-curricular work, often with supervision from regular teachers.*

ABOVE—*The Russians teach sewing but Miller saw no cooking classes. "Girls can learn to cook at home," the teachers explained.*

BELOW—*Uzbekistan children in a junior high physics class. Elementary nature of the science taught is suggested by electric bell diagrams and scant equipment at back of room.*

LEFT, ABOVE—Machine shop is elective in the ten-year schools. Industrial arts is actually sub-engineering, emphasizing the theoretical more than American schools do and requiring fewer student projects. The Russians teach a great deal about industrial production in the secondary school industrial arts classes.

RIGHT, ABOVE—The typical physics class apparatus case. In some schools the variety and quality of equipment rivals that of the best large technical high schools of America. Interestingly, Russian children are not only required to clear their equipment after class, but to do some janitorial work as part of the manual labor program spared no one.

CENTER—Physical training for both boys and girls is emphasized, and much of it takes place out-of-doors in all kinds of weather. The Soviet citizen is expected to be—and is—physically tough.

LOWER PHOTOS—Every Russian school's halls are lined with photos of political figures in huge frames. Potted plants grow in every window. Often floors are rough, electric wiring exposed, and buildings shaky. In School 717, Moscow, Miller was told that the primary grades were taught on the top floor because "the big boys would shake the building if they climbed the stair." The photo at right, taken in Kiev, shows typical Ukranian school uniforms. The photo display celebrates the 40th anniversary of the Communist Revolution.

(Continued from page 80)

many students as possible were kept within the system of production. He noted that at the present time 880,000 out of a total of 2,100,000 university students in institutions of higher education obtained their education in evening and extension classes and that this should be increased and emphasized.

The reorganization of secondary schools and higher education provides for *"vita non scholae,"* as the excellent German review, *Ostprobleme,* points out. The increased emphasis on working while studying at night schools and in extension courses threatens to wreck the relatively high academic standards derived from Europe before the Revolution and severely damaged in its aftermath for at least a decade. Valuable scientists, engineers, and skilled workers will still be trained, but cutbacks will be made in secondary and higher education for many potentially talented young people in the great liberal arts and sciences tradition. The pendulum of Communism and literacy swings again toward narrow selection of skills, filling of the labor ranks, and a fear of a new intelligentsia and bourgeoisie.

By contrast, the US high school does produce both amateurs and experts, giving a general education to all, but recognizing that each individual has talents which must be identified and sought out. We believe with Jefferson that "nature has scattered talents with an equal hand through all its conditions . . . we hope to avail the state of those talents which nature has sown as liberally among the poor as the rich but will perish without use if not sought for and cultivated."

Human beings are unique in their capacity for conceptual thought, for dreaming dreams, talking about them, and making them come true. But unless they can communicate effectively, using symbols in all areas of knowledge (written and vocal), they are crippled. Our high schools not only teach the Three R's but also the Three H's—the head, the heart, and the hand.

Keys to the Future for Anyone

The US high school gives the keys to the future to everyone who is willing to pay the price in thoroughness, accuracy, independence, and self-discipline.

General education, vocational education, technical education, and academic college preparation are all under one roof in the comprehensive high school unique to the US.

However, our desire for universal education sometimes outruns our actual performance. What are some criticisms of universal education in the US? Is our secondary and higher education too soft and unchallenging? The stamina and ability of our World War II forces and their desire for further education would seem to disprove this. Actually, science enrollments have increased twenty times since 1900. We are intent upon creating new and improved opportunities in science and mathematics at the present time. We are extending the scope of foreign languages, which too few study in the elementary and high schools. We have wisely insisted upon increasing our grasp of world history and geography, in which opportunities are too limited at a time when these areas of knowledge are even more critical. We regard the arts, physical education and health, and actual experience in the democratic processes as essential in the school curriculum.

Democratic Education Costs Money

At certain times and in some areas our schools have been ill-housed, ill-equipped, and ill-staffed. We cannot have a high standard of universal education without paying well for it. The Dorothy Thompsons who become hysterical about our schools as palaces should realize that too many of our school plants are out of date; and that long range adequacy and low maintenance costs are of the essence rather than her purblind parsimony. The shortage of public school classrooms was over 142,000 units in 1957. We need contemporary buildings designed by professionals in education and architecture for flexible school and community use, with adequate provision for libraries, health centers, cafeterias, and gymnasia in addition to classrooms. This is not a job for professional critics of everything whose brand of education is hung about with nostalgic delusions about the past (viz., Dorothy Thompson and Clifton Fadiman).

We still lag behind in pay, prestige, and community support for first class teaching and do not compete as we need to against other career pressures for first class personnel. We need merit salary scales and long range in-service education. The modern community has the same responsibility to back up good teaching which the primitive tribe never forgot. When the community permits corruption and sharp practices, the school has difficulty in teaching fair play, ethics, the "pursuit of excellence," and the "habitual vision of greatness" which are or should be its primary aims in the United States. Furthermore, we still waste too much talent in our universal education through drop-outs from the tenth grade on. We suffer from an inadequate use of talent among women, in depressed areas, among older workers

and underprivileged minorities. We are fortunate in facing our educational difficulties with that delightful difference in opinions which make us a democracy and not a dictatorship dangerous with decrees.

What does Rear Admiral Rickover, brilliant engineer-scientist, known as the creator of the atomic submarine, think about the US high school?

He thinks that we waste our talented youth by sending them to an elementary and a high school which intermingle social, vocational, and academic training.

The American high school is criticized as being partly a social institution when it should be emphasizing the tough academic subjects—mathematics, science, and foreign languages. This analyst is quite rightly concerned about the American attitude toward the mentally superior: "Our attitude toward the mentally superior is surprising when we compare it with the generous applause we lavish on superior talent in athletics or in the arts, on unusual beauty or outstanding business acumen."

His analysis goes on to say that we don't have to imitate the European pattern nor do we need to educate our talented children in separate schools. However, it is rather clear that he prefers to identify the talented at an early age, no later than eleven, and to educate them separately, speeding up academic studies. Rickover admires the European solution and would like to imitate it: "Europe solved the problem differently."

Rickover forgets that the Europeans are far from satisfied with their system and have tried to change their two-track elite versus mass system because their so-called external examinations admitting on merit to the lycee, gymnasium, and grammar school simply don't work. Children mature at different ages, and so-called external objective examinations are far from infallible.

Furthermore, the separate education—the class system—has accentuated conflict between classes and has given no real education in citizenship or that enculturation into the society essential to its survival and progress.

A more urbane and balanced analyst is James Bryant Conant—scientist, past president of Harvard, advisor to the US government in the atomic age, high commissioner and ambassador to the Republic of Germany—as he investigates education in his book, *The Citadel of Learning*. Conant has a sense of history and philosophy in his approach when he notes that: "I want to make it abundantly clear at the outset that I am not passing a judgment on the absolute merits of the two systems . . . I am not recommending that any European country take over the American concept of education, and I am most assuredly not advocating that we revert to the European. . . . The reasons for the conservatism of Europe on educational matters, on the one hand, and for the revolutionary nature of the American developments, on the other, are to be found in the social history of the two continents. One of the basic differences between Europe and the United States in the last hundred years can be described by the word mobility. Here on the North American continent we have had a high degree of both geographic and social mobility; in Western Europe, a relatively low degree."

In short, we are a fluid society with few barriers of class and hierarchies, insisting upon equality of opportunity and respect for all vocations. We have created our own unique pattern of universal education with which we can seek out the talented and give them more advanced and enriched education.

Adventure-Diversity Vs. Decree-Uniformity

We should treasure and be proud of our pioneering in the realm of universal education from the first educational awakening over 100 years ago to the second educational awakening in which we are now engaged. We should retain calmness and courage in the face of complicated pressures, as we have in the past. Education is directed learning. The pattern of education in any country is at one and the same time a mirror and a catalyst. Education mirrors or reflects the values which a culture holds to be paramount, whether they be materialistic power, total government control, collective organization, chain-of-command discipline, or whether the values be equality of opportunity for everyone, universal education, separation of church and state, equal justice under constitutional law, federal cooperation, and decentralized responsibility. At the same time, every system of education is a catalyst, an active force never being depleted by the formula in which it operates. Education as a catalyst may produce social mobility and parallel types of social groupings, or it may crystallize the culture into social classes and severely restrain mobility.

The strength of US education is in its democracy and diversity. Whitehead has pointed out that "a diversification among human communities is essential for the provision of the incentive and material for the Odyssey of the human spirit. Other nations of different habits are not enemies; they are godsends. Men require of their neighbors something sufficiently akin to be under-

stood, something sufficiently different to provoke attention, and something great enough to command admiration."

The USSR's education suffers from insistence on the uniformity for all peoples which is cultural death. Adventure toward ultimate truth is essential to the progress of the human spirit. Democracies believe that as passengers on the same planet underneath the same stars there are many paths of mutual aid in universal education which lead toward that ultimate truth for all—unity in diversity.

BOOKS

for leaders

An Important Book, But It Leaves Some Basic Questions Unanswered

THE HIGH SCHOOL IN A NEW ERA, edited by Francis S. Chase and Harold Anderson. The University of Chicago Press, 1958. xiv plus 465 pp. $5.75. Reviewed by Galen Saylor, *chairman,* Department of Secondary Education, and Rex Reckewey, *associate professor of secondary education,* University of Nebraska.

SAYLOR: Rex, you attended the Conference on the American High School sponsored by the University of Chicago in collaboration with the National Citizens Council for Better Schools in October, 1957, and have now read the papers published in book form. What was your impression of the conference and of the papers presented?

RECKEWEY: Before I answer your question, I think we should commend the University of Chicago and the National Citizens Council for their efforts in arranging such a conference. The appropriateness and desirability of taking a new and critical look at the work of the secondary school could hardly be questioned. I might add that those with whom I visited were enthusiastic participants, ready and willing to appraise carefully the accomplishments and deficiencies of the present-day high school and to accept the challenge of providing more adequately for the educational needs of the future.

I guess the real surprise to me was the nature of the challenge which was presented. There was every reason to expect that considerable attention would be directed to the problem of adequately preparing our talented young people for college and for leadership roles in the scientific world of the future, but I for one did not anticipate that this theme would so dominate the efforts of the conference that deliberations equally significant, to me at least, were either minimized or completely overlooked. A second factor that troubled me was the number of speakers who seemed to base their presentations on the assumption that very little of a positive, constructive, and desirable nature is now being done in our high schools, that we have failed in our task, and that a radical change in organization, curriculum, and methodology are in order. Others seemed to reject much of what we have learned from the educational psychologist is sound practice. To be specific, I think this approach is apparent in the papers presented by Chancellor Lawrence Kimpton, Dean Francis Chase, and William Cornog.

At the same time, there is much merit in what these men had to say, and their pronouncements do contain a challenge to one's accepted beliefs and philosophy of education, as well as to current practice. If this was the purpose of the conference and now of the book, I am sure it is a welcome publication.

Before you think me overly critical, I should like to say that there are many positive highlights in the proceedings. For example, the reflections of President Conant on his experience with the European system and the tentative conclusions these observations suggested for our system are worthy of note.

What were the highlights of the conference for you?

SAYLOR: First, of course, I was impressed, as you were, by the fact that the conference brought together many leading educators, all concerned about secondary education, for a consideration of problems and issues facing us today. Many topics were covered in the papers. Certainly, this book is one that should be widely used in graduate classes and seminars on secondary education. I do not agree with some of the positions taken in the papers and I think there are serious omissions in the topics considered, yet I want my students to make extensive use of the book.

I particularly liked the point of view expressed by our former chancellor, Reuben G. Gustavson, in his plea for a proper balance, in the secondary school program, between science and the humanities. And I like Dean Quillen's statement about standards in the secondary school. Although I disagree with some of his conclusions, I like the basic analysis of the place of the high school in our American culture by Henry Steele Commager.

RECKEWEY: You stated that you did not agree with some points of view expressed and that you felt that the conference failed to consider some important topics. What are these?

SAYLOR: I think the conference failed to come to grips in a basic and fundamental fashion with the functions and purposes of the American high school. Many speakers, of course, stated or implied a conception of these aims and purposes, but we need so desperately in secondary education today to base our examination of the secondary school on a clear and explicit statement of accepted values. Obviously, no delineation of the place and role of the high school in a new era can be sound or valid unless it is formulated in terms of a concept of the functions and purposes of secondary education that gives full expression to our democratic ideals and the unique concepts of the American high school as a social institution. Not a single eminent philosopher of education addressed the conference, and an absence of papers by people who have made outstanding contributions in this field of study was noted.

This failure to define properly and adequately the purposes and aims of the secondary school in the "new era" is most seriously reflected, it seems to me, in the papers by Ralph Tyler, Francis Chase, William Cornog, and, to some extent, in that of Henry Steele Commager.

What are the functions and purposes of the secondary school in the years ahead to be? Will it serve fully these responsibilities if it concentrates its efforts solely on its "academic functions?" I think not. *The secondary school in this new era must still be concerned with the total development of the adolescent.* Youth who need the help of the school most in preparing to face a multiplicity of problems that will impinge upon them are the ones whom the home has already failed, who are not getting help from other community agencies, and who have no other source of help. Who is going to help a youth in the total process of growing up when all other agencies in the community and his own family have failed him? Are we to set up a new youth-serving agency, just so the high school can limit its program to an academic one? Of course, the school does not need to waste his time by subjecting the pupil whose development is normal to learning experiences and school services he does not need. I agree with Tyler and Commager that for such pupils (and they constitute the overwhelming majority, of course), the school does not need to perform functions now adequately performed by other agencies. But what about the child who has not made the grade, who does have major unmet needs of one kind or another? I think the school has a responsibility to help him become the kind of a person we all think he should be. This position implies, of course, the individualization of the program and services of the school, and that is what it should always do in any era.

Undoubtedly, as stated by Commager, Tyler, and Chase, we need to make some changes in the programs of secondary education in this country, but let us first define some basic concepts and clarify our system of values before we rush with all deliberate speed back to the eighteenth century concept of secondary education, as was suggested by Commager, and seemingly envisioned by Chase as the kind of a program needed in the "new era."

What further reactions to the conference and papers do you have, Rex?

RECKEWEY: Having already revealed what might appear to be a negative reaction to the conference proceedings, it may sound contradictory to say that I found the proposals presented in many of the papers generally helpful and highly informative discussions of some rather significant considerations essential to the building of a high school for a new era. One is impressed with the scholarly manner in which the many contributions were written, the considered reflections which must have gone into their preparation, and the ability of these writers to present a point of view. Those who have had occasion to read and use the collection of articles have undoubtedly had many of their sacred convictions affirmed or seriously challenged and are now in possession of new ideas about the future function and composition of the American high school.

There are, as might be expected, somewhat divergent views about a wide variety of subjects. The segmented approach, which I assume is an unavoidable result of such a publication, does, however, fail to provide a strong central theme to which one can subscribe wholeheartedly. If the reader wishes to do the necessary synthesizing for himself, he may have a better pattern for the high school of the future. The critical reader may also conclude that the conference and the book

have failed to come to grips with some of the important issues in secondary education today, as you stated. I felt personally that the place of the comprehensive high school in meeting our future needs was not adequately considered. Probably those responsible for the conference did not expect to establish a drastically different pattern for high schools of the new era. I would rather imagine that they intended to stimulate our thinking on what improvements or changes in our present system might be made. Obviously, the effect that these deliberations will have on practice is a question still to be answered.

Again and Again, 'What Is Proper Nature of Education?'

HUMAN RESOURCES: THE WEALTH OF A NATION, by Eli Ginzberg. New York: Simon and Schuster, 1958. 184 pp. Reviewed by Robert G. Risinger (Beta Epsilon 407), *associate professor of education*, University of Maryland.

TITLES of books can sometimes be rather forbidding. *Human Resources: The Wealth of a Nation* could conjure up to some readers on first impression a mental picture of masses of statistics and census data on wages, manpower, and similar economic items. Nothing could be further from the truth. Eli Ginzberg's most recent volume in the series growing out of the Conservation of Human Resources Project at Columbia University is simple, light, and delightful reading. At the same time, however, it is a most stimulating and thought-provoking little volume. I suspect that the author will make most readers somewhat uncomfortable, for he points out in a quiet and analytical way misuse of human resources in nearly all aspects of the American economy.

While most readers perhaps will not quarrel with Ginzberg's basic thesis that human beings, not land or machines, are really the wealth of a nation, I imagine that many will find statements and views to which they will take exception.

There are, on the other hand, many ideas expressed by Ginzberg which will find rather general acceptance: Discrimination against Negroes and against women takes a heavy toll of the maximum utilization of our human resources. Research and progress must be pushed in finding ways of rehabilitating the mentally ill, the handicapped, and the aged. Steps must be taken to make productive individuals of the ten million or so functional illiterates in our population. College faculty salaries need urgently to be increased until it is no longer economically better to be a plumber than a physicist!

In analyzing how we might make better utilization of our human resources, Ginzberg probes into many facets of American life: business, labor, education, and the church. Because of the importance of education in determining whether a person reaches his full potential, Ginzberg returns again and again to consideration of what is the proper nature of education. In taking a close and hard look at our schools, and after agreeing that the American system has undoubtedly been the best ever developed by any nation, he finds many disturbing things:

The principal weakness in our educational system is the quality of the secondary school. Teachers on the whole are not very capable people and far too many are women. They are guilty, along with doctors, nurses, and labor, of featherbedding practices. They resist the hiring of assistants who could do much of the routine work because they want to protect their present status in the market.

Schools do not do a very good job of guidance in the area of vocational information because the majority of teachers are women who know only one job, teaching, and the typical guidance counselor is also likely to lack an intimate acquaintance with the job market. More important than any testing or guidance techniques is the contribution the school can make by providing able teachers, Ginzberg contends, "but regrettably many of the 123,000 elementary and 30,000 high schools of the country cannot boast of even a few outstanding teachers."

Ginzberg raises some questions about compulsory school attendance laws and contends that many adolescents attend school but fail to profit from the experience; in fact, "they would be better off if they could work." He also feels that higher education has now enrolled many students who would also be better off out in the world of work: "Many college students are little more than time servers, waiting to grow up so that they can marry or get a job."

The neglect of the gifted in this country troubles Ginzberg deeply, for our society's accomplishments, even its survival, will depend on its developing the maximum number of people with high potential. He feels that we have failed to do this in the past and states in a somewhat whimsical tone that "in the United States the most thorough search for talent occurs in baseball." He sums up the problem in this way:

> We are willing to drill for oil knowing that the odds are heavily in favor of the hole's being dry.

> We are willing to write off a half-billion-dollar investment in a new missile as a bad mistake. We make very large grants to other nations in the hope that they will stay friendly with us. In these and in a legion of other ways we are willing to invest large amounts today in the hope of securing still larger returns tomorrow. In only one regard we act the miser. We have been unwilling, at least up to the present, to make an appropriate investment in the development of our nation's brainpower, the foundation of our strength, the hope of our future.

And Ginzberg is not optimistic about the future. The public is still looking for bargains. Money must be found for buildings and faculty to care for an approximate doubling in the student body at the college level, for example, in the next decade. "There is little prospect," as he sees it, "that state legislators will allocate their proportion of such a sum; and there is no prospect whatever that trustees and alumni of private institutions will raise their share."

I do not think a book such as *Human Resources: The Wealth of a Nation* should upset educators to the point of rejecting it completely. Many of the aspects of education he criticizes in such a telling fashion are weaknesses known only too well to educators. Ginzberg is looking at education from a different perspective—from the idealistic, long-range view of an economist. He is suggesting that we have the resources and the ability to make vast improvements, no matter how good our public schools are at present. It will be healthy and stimulating for the profession to consider carefully such constructive criticism. Eli Ginzberg is no Arthur Bestor!

A most revealing and, in a way, depressing chapter in this slim volume is Ginzberg's dissertation on talent and superior performance. He attempts to analyze the factors contributing to the achievement of high positions of leadership in the arts, science, industry, and government. Eisenhower, Heifetz, Truman, Curtice, Dulles, Hitler, Fermi, Einstein, Von Newman and other contemporary leaders are used by Ginzberg to illustrate the points he is making. He suggests that excellence requires the individual early in life to trade current pleasures for future gain. The individual must have a high degree of determination to stick to his own goals and standards irrespective of whether his friends approve or not. He is likely to be lonely and can never really be one of the crowd. He will have little time to devote to normal family activities. The individual who seeks excellence must be born with a high degree of intelligence and have undergone a long and arduous process of training and development. But such factors as timing and luck are almost equally important in determining whether a man finally reaches the pinnacle. "The odds are always against any particular individual no matter how great his talents and his ambition." As if this were not enough, there is always politics to consider. "In every large organization, in corporations, universities, labor unions, hospitals, ecclesiastical institutions, the men who rise to the top," concludes Ginzberg, "usually get there through the exercise of political skills."

Many readers will find themselves reflecting on their own employment situation and speculate seriously whether the prize is worth all of this struggle. The path to the top, if we are to accept Ginzberg's appraisal, can be reached only by neglecting family, shutting out friends, and endangering health by long hours in extra work beyond the normal call of duty. It is to be reached only by the few who are dedicated to their work with a passion that overrides all else and upon whom Lady Luck smiles. Ginzberg's conclusion is that many will decide the prize is not worth the cost. As life becomes easier and a man can secure for himself and his family more of the good things without working all of the time, fewer and fewer men are likely to cultivate excellence. And what will be the ultimate outcome? Ginzberg concludes that individuals and families will be happier, but no one can say how society will fare, "for social progress has always depended on the few who dedicate themselves to the nurturing of excellence."

Lucid—But Misleading—Proposals For Solution of Tough Problems

THE AFFLUENT SOCIETY, by John K. Galbraith. Boston: Houghton Mifflin, 1958. 368 pp. $5.00. Reviewed by Ross Robertson, *director of business history studies,* Indiana University.

NO ONE in the top rank of economists has a popular following as large as that of John Kenneth Galbraith. Witty, urbane, skilled in the craft of the journalist (he was for many years an editor of *Fortune*), Galbraith writes with verve and style. In previous works, notably *American Capitalism: The Concept of Countervailing Power* and *The Great Crash: 1929,* Galbraith demonstrated an uncommon ability to communicate with the general reader, at once enlightening and edifying him.

Popularization nonetheless is a dangerous business. Writing for a wide audience, a man must inevitably blur technical points and in so doing

exaggerate his thesis. The exaggeration, in turn twisted by the unlearned and uncritical, becomes a monstrous distortion of the truth, with the likely consequence that readers who should have been educated end up confused and misled.

In *The Affluent Society* Galbraith clearly demonstrates this danger. His thesis is simple enough. Until little more than a generation ago men in the Western World were beset by terrible inequalities of wealth and income and by appalling economic insecurity. Yet suddenly (Mr. Galbraith does not tell us how or precisely when—or what happened in other countries of the West) the people of America solved the economic problem. Inequality of income, still great, was no longer a matter of concern because total output was rising so rapidly; and the insecurity formerly consequent upon old age, illness, and depressions was pretty effectively legislated away. Indeed, poverty, at least in the way that our forbears experienced it, pretty well disappeared. But all was not well.

***For a fascinating discussion of the significance of* The Affluent Society *for educators, see the October* Nation's Schools.**

The new-found affluence meant that Americans were becoming obsessed with the ideal of production, and ever higher levels of production implied higher levels of want satisfaction. To keep output ever rising, it has become necessary to create wants that the consumer never knew existed, a sinister process, according to Galbraith, whereby Madison Avenue clearly develops in dim-witted, weak Americans tastes for things which obviously are less and less useful, things which patently bring less and less satisfaction. As this process goes on, there has developed an enormous social imbalance between production of goods within the private economy on the one hand and public goods and services on the other. The output of schools, hospitals, parks, protective services, and the like simply has not kept up with the requirements for them.

Few would quarrel with Galbraith about his conclusion that the United States should invest a greater portion of its resources in community plant and facilities, especially in the South where (Galbraith makes this admission in Chapter 23 after a contrary assumption in the preceding 22 chapters) poverty still exists. I would quarrel, however, with Galbraith's proposal for remedy. Galbraith believes, first of all, that we must quit straining the economy to produce its present full output of private goods and services. Admittedly, the drop in employment which would result would have to be offset by a new, highly centralized scheme of "Cyclically Graduated Compensation," which would provide lower rates of compensation at full employment and higher rates as unemployment increased. Moreover, the problem of redressing the balance of private and public expenditures " . . . will not be settled by a resolve to spend more for schools and streets and other services and to tax accordingly. Such decisions are made every day, and they do not come to grips with the causes of imbalance." To come to grips with the problem, Galbraith proposes that a system of taxes be adopted " . . . which automatically makes a pro rata share of increasing income available to public authority for public purposes." The task of public authority would then be to distribute a continually increasing income in accordance with relative need. Then, so Galbraith thinks, schools and roads would no longer be at a disadvantage compared with autos and TV.

I disagree with Galbraith on three grounds. First, as he so pointedly admits towards the end of the book, affluence is by no means evenly spread throughout the American economy; the bottom four-fifths of our people are pitifully poor; the lowest one-fifth of our spending units have an average income of $1,080 per annum. Nor can I believe that the free human spirit should be subject to an arbitrary decision about what wants should have priority; freedom implies freedom to go to hell as well as heaven. But mostly I would argue that a solution to the problem of poverty can be achieved only, as Galbraith suggests, it has been historically resolved, by stretching the economic output of the country to its enormously expanding potential. Those who deny this last proposition must somehow or other explain how it happened that the poorest sections of our country, notably the Deep South, made their most remarkable economic gains in postbellum days during the decade of the 1940s when, in spite of inflation, these states at last became economically a part of the United States.

The Affluent Society is an entertaining, stimulating venture into the world of modern economics, but the serious reader should not be deluded by its lucid proposals for solving tough problems. The book is the work of a man who, however great his gifts of expression and intellect, argues for a radical change in our institutional structure. The "conventional wisdom" of our society perpetuates a lot of foolish notions, but one intuitive judgment of our people that is, I submit, eternally right is the one which says that the only measurable improvement in our lot comes from a persistently increasing output of goods and services of whatever kind, for whatever end.

JUVENILE DELINQUENCY, edited by Joseph S. Roucek. New York: The Philosophical Library, 1958. 270 pp. $10. Reviewed by Leonard B. Voorhees (Gamma Upsilon 132), *director of pupil personnel,* Euclid, Ohio, Board of Education.

JUVENILE Delinquency is compilation of fourteen reports on the problem under four main heads: "The Framework," "The Search for Causes," "Evaluation of Attempted Solutions," and "International Trends." Editor Joseph Roucek, a professor at the University of Bridgeport, states that his undertaking arose out of increasing awareness by federal, state, and local governments of the need for research on causes, prevention, and correction of delinquency trends. He and his authors have attempted to digest and systematize widely scattered knowledge about juvenile delinquency to promote more effective measures of prevention and cure. The entire work emphasizes the validity of the theory of multiple causation.

Each of the fourteen chapters is written by an especially well qualified authority who has had first-hand contact with the problem in a particular area of research. Thus treatment of the varying aspects of delinquency, beginning with dimensions and legal aspects and proceeding in logical sequence through biological, psychiatric, social, cultural, economic, and mass media factors, prepares the reader to appraise preventive and corrective measures offered.

Of special relevance for school men is the chapter by P. M. Smith, Central Michigan College, on "The School as a Factor." When children are herded together in a group situation they exhibit rather early characteristics foreshadowing adjustment problems. We in public school work interpret our responsibility as including the training of children in social control, particularly in respect for authority and group loyalty. Early recognition of behavior danger signals is therefore of prime importance. Mr. Smith offers little that is new, but when one remembers the recent NEA "discipline" survey, which disclosed that some 77 per cent of teachers favor corporal punishment in the grades and 37 per cent favor it in the high schools, he wonders if it is something "new" we need or simply a better understanding of what has already been suggested or proven by research. Punitive measures may sometimes help to maintain "classroom order," one condition or climate for learning; but more often they aggravate the problem. Similarly, the use of suspension for chronic absenteeism or gross misbehavior is but an admission by school authorities that the problem is being attacked too late—even though the measure may often be necessary for the welfare of the majority of pupils.

Unfortunately, there is not space here to describe in significant detail any of the successful prevention programs discussed by Roucek's authors. Suffice it to say that *Juvenile Delinquency* is a book which merits careful and judicious reading by school men for its bearing on one of their most troublesome problems.

PRINCIPLES AND PRACTICES IN GUIDANCE, by Emery Stoops and Gunnar L. Wahlquist. New York: McGraw-Hill Book Company, 1958. 369 pp. Reviewed by Charles R. Foster, *assistant dean,* College of Education, University of Florida, Gainesville.

TWO practical school men have written a practical book intended primarily as a basic tool for the use of teachers and general educators who are confronted by the need to engage in everyday guidance activities of importance.

Recognizing guidance as a continuing process, and as a function which involves both teachers and specialists, the book provides a good overview of what guidance involves. It gives due attention to each of the major guidance functions but gives special emphasis to such matters as the collection of important and useful information about students, the provision of educational and vocational information, and to placement, follow-up, and evaluation.

There is a good discussion of the various roles in guidance performed by different people in the school. The discussion recognizes that many people on the school staff perform guidance services and that their roles should be understood. Yet it is stressed that, for best results, schools also are definitely in need of guidance specialists. The significant role of the classroom teacher is recognized without going overboard on the theme that the classroom teacher is ready, willing, and able to do everything.

Emphasis is given to the fact that financial provision must be made for guidance if it is to be effective. This includes not only provision for staff time, but also provision for space and facilities. The discussion of this important matter is one of the best I have seen. A real contribution is also made to the importance of ways and means of evaluating guidance programs. The discussion of counseling—as it is conducted in the school—seems practical and well grounded in reality.

Returning to the first part of the book, there is a very thorough discussion of ways and means

(including tests) of securing and establishing information about the individual—information which is indispensable to the proper fulfillment of the guidance function.

This text would be identified, in my opinion, with those recent books in guidance which seek to provide useful and valuable help for teachers, as distinguished from those which undertake to evolve theories, which undoubtedly have varying degrees of value but which are often more speculative than tangible in what they offer to people in the field.

New School—New Curriculum

By **HERBERT WEY**

WHEN the 500 students of Spencer and East Spencer High Schools in Rowan County, North Carolina, returned to school this fall they entered an ultramodern, million-dollar school building, and at the same time had a curriculum which was as up-to-date as the building was new. The new curriculum was the result of a long-term curriculum study carried on simultaneously with construction of the new plant. It took many, many hours of study, research, and hard work on the part of teachers, parents, pupils, administrators, supervisors, and educational authorities. This is a brief account of that year and one-half of work.

The "Why" of the Study

In the fall of 1956 the Rowan County Schools began a consolidation program that will eventually result in four modern high-school plants, each costing well over a million dollars, to replace the present nine high schools. Construction of the first school plant, built in the north end of the county, was begun in 1956. This school, now known as the North Rowan High School, replaced the old Spencer and East Spencer High Schools.

There is nothing new about two small high schools being consolidated in a single large plant. This has been going on in the state of North Carolina and throughout the country for more than a decade. Too often, however, the educational programs offered in smaller schools are transferred *in toto* to the new school without thought of expansion or improvement. The study described here was made to prevent such an occurrence at the North Rowan High School. Superintendent Charles C. Erwin, J. F. McKnight (chairman of the Rowan County Board), and other board members and school leaders in the county were determined on this point. The ultimate goal was to provide an educational program second to none, and furthermore, a program which would be based on each individual's needs.

Unable to find a pattern for a pre-consolidation curriculum study, Erwin and his staff decided to make their own. To do this, they enlisted the help of parents, teachers, students, and educational authorities in planning and conducting the curriculum study reported here. Erwin went outside Rowan County to get a person to organize and direct the study. Two Rowan County supervisors were given the job of coordinating it. In addition, Erwin secured the services of twenty-six educational consultants, representing the State Department of Education, North Carolina colleges, and the public schools.

The "How" of the Study

The study actually began in the spring of 1957 with the appointment of a steering committee composed of the director, the superintendent and his staff, the principals of the schools to be consolidated, and lay people who later served as chairmen of other committees. It was the job of the steering committee to plan the curriculum study as well as undertake gathering and analyzing research data that would be needed as the study progressed.

In the spring of 1957, intelligence, achievement, and reading tests were administered to each student who expected to enter the new school in the fall of 1958. These test data were carefully an-

MR. WEY *(Alpha 1462) was until this fall dean of the Graduate School, Appalachian State Teachers College, Boone, N. C. He is now a professor of education at the University of Miami, Coral Gables, Florida. He recently completed work on a handbook for schools faced with the problems of desegregation, a Phi Delta Kappa Commission project.*

alyzed, and in several cases re-testing was done. Mrs. Amendola and Mrs. Sowers administered and scored all tests. With consultative help, they interpreted test scores. Later, a special research committee was established to secure such other data as job opportunities in Rowan County, educational and vocational intentions of students, causes of drop-outs in the two schools to be consolidated, educational backgrounds of parents, general health of pupils, and opportunities for home study on the part of students.

Cooperation was enlisted from P.T.A.'s in the two school districts, other lay groups, teachers, and students. Much publicity was given to the study throughout the summer of 1957. The actual "kick-off" meeting for the study was held early in the fall of 1957, when approximately 500 parents, teachers, and students assembled to hear Dr. W. H. Plemmons, president of Appalachian State Teachers College, discuss some of the modern trends in curriculum improvement. Following this address, the author, as director of the study, gave a complete explanation of its purposes and how it would be conducted. Also, much of the test data was revealed, in order to create greater interest on the part of the assembled group. Superintendent Erwin pointed out that the real reason for the study was to assure the parents that their children not only would have one of the best physical plants in North Carolina but would also have educational opportunities equal to the best in the state. He challenged the parents of the community, as well as teachers and students, to participate in the study in order to assure themselves of having an outstanding program at the new school.

Following this meeting, nine committees, each chaired by a lay person and composed of teachers, parents, students, and consultants, began studying different areas of the educational program that would go into the new curriculum. These committees were as follows: research and philosophy committee, language arts committee, social studies committee, mathematics and science committee, health and physical education committee, vocational education committee, fine arts committee, library committee, and guidance and activities committee. These groups studied curriculum bulletins, listened to the views of educational consultants, made surveys of students' and parents' interests, studied research data concerning students and the community, and visited North Carolina schools known for outstanding programs in the various areas of committee responsibility. Some committees had as many as ten meetings, often lasting three hours. By the end of the year, each committee had made a preliminary report to the total group, meeting on the first and third Monday nights of each month during the fall. Parents, teachers, students, and consultants participated in making these preliminary reports. Visual aids were used extensively. The reports were followed by group discussions, often heated and sometimes leading to changes in committee recommendations.

Following the preliminary reports, the committees spent the month of January polishing up their final reports. During the last week of January the steering committee compiled a summary of the final reports. At a dinner meeting in late January, the chairmen and consultants of all committees, the county principals, the superintendent and his staff, and the director of the study spent four hours studying each committee's final recommendations in relation to the total program to be offered in the new school. As one would expect, this meeting, although it was a very profitable one, resulted in a need for further committee work. The first three weeks in Feburary were spent in refining and coordinating the reports of each committee.

On February 24, a final report of the work of each committee was given to the parents, teachers, students, and interested friends. More than 500 persons turned out to hear recommendations of the committees who had spent nearly nine months of hard work in developing their reports, and to see the bulletin boards and displays prepared by each committee. Although this meeting proved to be very successful, it was pointed out by both the director of the study and Superintendent Erwin that up to that time the group had only laid the groundwork. Continued curriculum improvement over a period of years is necessary.

Following this meeting, the steering committee, with the help of the new high-school principal, the study director, and the consultants, worked during the spring months conducting spring registration, developing a high-school schedule, and planning an organization of the school day that would best fit the newly developed curriculum. An extensive program of educational guidance was conducted in both Spencer and East Spencer High Schools to help each student select a program that would best fit his needs. The students' programs were then fitted into a school schedule that would best fit the needs of all. On the first day of school, in September, 1958, pupils went to classes taught by properly qualified teachers, received their books, were given assignments, and worked for a full day. Except for the novelty

of the new building and making new friends, the first day was the same as any other day of learning. The shortened day once held to fit students into a traditional schedule, make teachers' assignments, and balance class sections was gone.

What About Participation?

Participation in this study on the part of lay people, teachers, students, and interested friends far exceeded the expectations of Erwin and his school board. In all, 318 parents, ninety-seven teachers and principals, and ninety-one students, twenty-six consultants, as well as the administrative staff and other interested friends, participated in this curriculum study. This means that a total of nearly 550 people took part in and contributed at one time or another.

In addition to the ten general meetings, at which attendance averaged from 250 to 500 people, a total of 126 committee meetings were held, each averaging three hours in length. In connection with the study, ninety-one different people visited and spent a full day or more at fourteen outstanding high schools of North Carolina. During these visits the people not only observed what was going on but collected courses of studies, general organization bulletins, and many other materials of value in their committee work.

Yes, the participation in this study was extensive, but even more important was the enthusiasm evinced by each participant. In all my experience of working with study groups and curriculum improvement programs, I have never worked with a more dedicated school administration or found more enthusiasm on the part of lay people for their school.

What About Results?

This study resulted in many findings and recommendations which will be used as curriculum guides at North Rowan High School for some time to come. Many of the recommendations have already been adopted and are now part of the curriculum. For example, the vocational committee found very little need for a program of vocational agriculture in the new school. The committee pointed out that the North Rowan Community is rapidly becoming an industrial area and that very few young people are entering agriculture as a vocation. At the same time, the committee found a definite need for programs in industrial arts, distributive education, and certain trades courses—all of which have been added to the new curriculum.

Test results revealed that even though two years of mathematics have been required of all students in both schools, too many pupils were leaving high school with little knowledge of the fundamentals of arithmetic. In order to remedy this, the mathematics committee recommended and the new curriculum now calls for a two-track math program with one year of mathematics required of everyone in the ninth grade. At the beginning of this grade, counselors guide students into either general mathematics or algebra, basing their advice upon mathematics placement tests, grades in mathematics in elementary school, and future goals.

All students who do not elect advanced mathematics courses beyond the ninth grade are required to take another mathematics placement test during the spring semester of the junior year. If the student fails to show an adequate proficiency in mathematics, he is required to take a practical course in advanced general mathematics during the senior year. It is hoped that such a program will result in all high-school graduates leaving with the basic mathematics skills freshly acquired and thus retainable until they enter a vocation or further training.

Based upon the recommendation of the language arts committee, the new curriculum is now placing definite emphasis upon the teaching of reading, and students who have reading deficiencies are guided into reading classes which meet one hour a day. Here poor readers have an opportunity to remove deficiencies under the guidance of a person educated in the area of remedial reading. The reading classes carry regular high-school credit, and every effort is being made to see that they are not earmarked as "dumb-bell" classes.

In spite of the fact that sixty pupils out of 500 are seriously retarded in reading, test data show that the average intelligence of the Rowan County student body is slightly above the national average and that 60 to 70 per cent of the students are potential college-goers. Therefore, the new curriculum is placing a much stronger emphasis on advanced courses in mathematics, science, languages, and the social sciences.

The vocational survey of Rowan County and a follow-up study of graduates revealed a need for both men and women in the different business trades. Because of this, the business education program has been broadened to include training in advanced typing, shorthand, and office machines, as well as on-the-job training. A full-time staff member has been added to make a survey of opportunities for on-the-job training and to supervise students who are placed in the training positions.

From what was very little guidance in the two schools, there is now a strong movement toward emphasis on guidance, with teachers taking the leading role. The entire program is coordinated by a guidance director who has special training in this area. In addition, the school board has employed a full-time person to establish and coordinate guidance programs in all the high schools in the county.

As a direct result of this study, the librarian now devotes full time to helping teachers improve their instructional program. The library is rapidly becoming a center where students and teachers go as individuals, in small groups, or as an entire class to study and do research. If the recommendations of the library committee are carried out, the library will become truly a materials service center. The clerical work—accounting for books, circulation of books, etc.—will be done by student helpers and clerical assistants.

As a result of this study, the organization of the school has changed considerably. In place of six 55-minute periods, there are now five 65-minute periods and one 45-minute activity period. Graduation requirements have been raised to eighteen units, with all ninth and tenth graders carrying five units each. Juniors and seniors are encouraged to carry five units unless they are involved in on-the-job training. This has resulted in abolishing study halls, and each student is given some time for study in each class under the direction of his teacher—this being made possible through the lengthened period. Allowing students to carry five units each year is going to enable them to get the college preparatory courses they need and at the same time take a course or two in some area of special interest. Another interesting recommendation was to abolish the signal to start classes. A signal is now given at the end of each class; students go directly to the next class and start to work. At least the temptation to out-guess the second bell has been removed.

One important outcome of this study was careful selection of faculty for the new school. Wherever trained teachers for a certain special area were not available, good teachers were selected and sent to summer school for the necessary training.

Space does not permit all of the changes recommended and adopted to be discussed in this article. Readers interested in a more complete report may write Charles Erwin, Superintendent of Rowan County Schools, Salisbury, North Carolina. The final report, including over 130 pages, gives complete information on how the study was conducted, lists recommendations made, and contains copies of all guides given to consultants, committees, and study leaders, as well as copies of all questionnaires used to collect data.

Evaluation of the Study

Participants were asked to evaluate their work and tell what the study had meant to them personally. Based upon these comments and observations made by the steering committee, my judgment is that the following represent the strong and weak points of the study:

One of the greatest values was the effect upon teachers, parents, and students. The fact that so many persons were involved in a cooperative project with a definite goal in mind, and that these people were able to keep up their enthusiasm until the end of the project, is certainly evidence of success. The visitations to other schools, the reading of recent literature concerning secondary education, the discussions with outstanding authorities in secondary education, and the answering of questionnaires have given the parents and students and even the teachers better insight into what a good school should be. Judging from the interest that the parents and students are now showing, the committee concludes that it will be a long time before parents and pupils will be satisfied with anything but a superior school program at North Rowan High School.

Of particular value was the tremendous lay interest the study aroused. As noted, laymen served as chairmen of all committees, and there was not one resignation throughout the study. This interest is already paying benefits in that the county as a whole is demanding more and better educational opportunities for the children *and is ready to pay what it costs to have this program*. Superintendent Erwin, who has given outstanding educational leadership in his county, says that he has never known a more desirous and willing lay population as far as education is concerned.

As a result of this curriculum study, definite improvements will continue to be made in the curriculum. Based upon test data, the new curriculum will place definite emphasis upon reading at the secondary level, and students in school this fall who have reading deficiencies will have an opportunity to remove these deficiencies under the guidance of a person educated in the area of remedial reading. There will be a strong program of industrial arts, a program of vocational training in the distributive trades, and also one in the skilled occupations. With the addition of placement tests in mathematics at the eighth-grade and eleventh-grade levels, the over-all mathematics

program will be greatly improved. If the recommendations of the library committee are carried out, services offered by the library will greatly improve the instructional program.

One weakness in the study would seem to be a lack of emphasis given to motivation and preparation of teachers for the undertaking. It was taken for granted that the teachers would clearly understand what was being done and the reasons for doing it, but this was an unwarranted assumption. Almost exclusive attention was paid to getting students and parents interested—preparation which certainly brought good results. However, the failure to prepare the teachers properly resulted in parents actually being in front in their interests—a condition which should not have existed.

Now What?

The study is not over. The committees established at its beginning are being retained and will continue their work during the school year of 1958-1959. They desire to see the results of their recommendations and at the same time to do further study, hoping for continued improvement. Members of the present high-school staff were carefully selected and each one agreed to an extensive, continuous in-service education program. The school board is paying for additional consultative help in the areas of guidance, reading, language arts, library usage, science, and instructional materials. Consultants in these areas will work with the staff throughout the year.

Plans are now underway to make a complete evaluation of the new curriculum, because, after all, the real question will be whether or not the educational experiences offered the students of the new school are greatly improved over those offered in the previous two schools. As the faculty and parents continue their study and evaluation, this question will be more fully answered.

Needed: Cooperation *and* Competition in the School Program

By **ANTHONY C. RICCIO and HERMAN J. PETERS**

TWENTY years ago the American public school was excoriated by its critics for compelling students to compete for unrealistic goals. It was alleged by social reformers of various stripes that much psychological damage was wrought upon children who failed to do well things that were not worth doing anyway. Today the public school is attacked because, in the opinion of some of its more vocal critics, it is sabotaging the American system of free enterprise by leading students down the pink path of collectivism. It is held that students whose education consists of nothing but wishy-washy cooperative experiences are not in a position to take an active and productive role in the American economy. Obviously, Americans are not agreed on the role that competition should play in education. In view of this problem, should the secondary school stress competition, cooperation, or both, and under what circumstances?

As commonly employed, the word "competition" refers to the procedure by which individuals or groups *contend against* each other for a particular goal; "cooperation" denotes individuals or groups *working together* for a common goal. The phrases of obvious importance in these concepts are "contend against" and "working together," for implicit in them is the nature of the respective acts. But the word "goal" is also of great consequence. Competition and cooperation are morally neutral; it is the end toward which these processes are focused and the conditions under which they operate that determine the value and/or desirability of either. Competition can lead to positive self-appraisal or a nervous breakdown. Cooperation may help produce a well-adjusted individual or a spineless, other-directed neuter.

Philosophers of most major schools agree that man is a social being. Obviously, competition and cooperation require a social context in which to operate. Man will inevitably come into contact with both forms of endeavor repeatedly during his lifetime. Moreover, because man is by nature potentially cooperative *and* competitive, it behooves the school to assist the individual to

MR. RICCIO *(Sigma 1759) is an instructor and* MR. PETERS *(Sigma 1674) is an associate professor in the College of Education, Ohio State University.*

realize the development of these potentialities in a desirable fashion.

It has been suggested further that man lives in two worlds: a vocational world that is generally competitive in nature and an avocational world that is for the most part cooperative.[1] The school can assist the youth in the first instance by teaching him some means of competing in the economic arena. Vocational curricula are examples of what the school can do to help the individual meet selected competitive demands. But the avocational interests of a student must also be fostered, and this is probably best done through cooperative methods. Boys and girls cooperate to make a success of the school dance; husband and wife cooperate to make a success of a steak fry held on a patio cooperatively designed and constructed by the whole family.

The instances in school and adult life in which cooperation is a prerequisite for competition are numerous. Interscholastic athletes cooperate during gruelling practice sessions in order to compete successfully against another group of schoolboys who have done likewise. In fact, it is difficult to think of a social situation in which there is not at least a modicum of competition or cooperation. The problem is not whether the school should discontinue competitive or cooperative practices, of course, but whether it should place more stress on one of them.

A perusal of the literature reveals that very little is published pertinent to the positive value of competition in school living. Emphasis is generally placed upon the dangers that result from unhealthy competition or the beneficial cohesiveness gained from using cooperative procedures in group work. One would gain the impression that cooperation is *the* method of the democratic school setting and that competition is to be shunned whenever possible. The inevitability of competitive experiences demonstrates the impracticality of such an outlook.

The literature indicates that competitive behavior has ambivalent effects. Researchers have reported that although competition reduces group solidarity, it increases individual output. Notwithstanding studies citing the importance of competition as a powerful motivating factor, it must be remembered that "only those compete who feel they have a chance of winning. The rest ignore the competition."[2]

The implications of pertinent research findings are readily stated. The schools must provide situations in which the student can gain competitive experiences that are not harmful and cooperative experiences that make it possible for a student to retain his individual character. Although much has been written on the various methods of providing students with beneficial cooperative experiences through such activities as teacher-student planning, little has appeared as to what the school can do to establish a healthy setting in which to provide competitive experiences. Alberty has listed a number of criteria that a competitive activity must meet to be educationally sound.[3] Among other things, he states that a competitive activity must provide for a number of "winners," must be engaged in on a voluntary basis, must have goals that are intrinsic to the activity itself, and must have rewards that are commensurate with the activity. Needless to say, if such criteria are to be met the secondary school must have a broad program of specialized activities—curricular and co-curricular. Logically, Alberty's position suggests that intramural athletics should receive more attention than is currently the case and that sponsors of such activities as debating and dramatics should critically examine their objectives and methods of selecting participants.

If the school provides competitive and cooperative experiences consonant with the findings of educational research, teaching methods will doubtless be affected. The teacher must note which students like to compete in certain activities and provide for them. Conversely, the teacher must also know the harm that can be done by compelling children to compete when they either do not wish to compete or would be foolish to do so. Further, a class in social studies might well consider the relative merits of competition and cooperation in a democratic society. They might even decide cooperatively on the kind of competitive experiences that the school should provide for students.

If sound experiences of a competitive and cooperative nature were provided for students, the work of the school counselor might be modified. Cooperative endeavors would in all probability reduce the number of social insolates, and the counselor might well devote more time to what Robinson has termed "higher level adjustment skills."[4] The counselor in conjunction with the curriculum coordinator could aid in establishing conditions favorable to meeting the needs of individual students in the areas of competition and

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[1] H. A. Davidson, "Competition, the Cradle of Anxiety," *Education*, November, 1955. pp. 165-166.

[2] Arthur W. Combs, "Myth of Competition," *Childhood Education*, February, 1957. p. 265.

[3] Harold Alberty, "Some Criteria for Evaluating Competitive Learning Activities in High School." Unpublished material.

[4] Francis P. Robinson, *Principles and Procedures in Student Counseling*. New York: Harper and Brothers, 1950. pp. 231-259.

cooperation. The guidance point of view would indeed prevail if students could develop their competitive and cooperative potential in a series of specially constructed experiences.

The goal, then, is one of balance between competitive and cooperative experiences with a eutectic quality of success permeating both. The recognition by today's pupil of the larger framework of standards which most people support and the competitive opportunity to achieve excellence in some phase of living should do much to give the pupil a sense of responsibility for becoming a productive person rather than a sense of expectancy of receiving much with a minimum of responsibility.

Whither the Gifted Child?

By **ALLEN L. BERNSTEIN**

OVER the past two years the voices demanding special educational attention for the gifted child have swelled to an energetic chorus. The debates over acceleration vs. enrichment and over segregation vs. enrichment in the regular classroom have been widespread; they are even taking place in high-school classrooms where speech students tackle the national debate problem. The government has stepped in with a "defense act." Research grants have been made. Some people are doing things with the gifted, some say they are, and some think they are.

How much attention has been paid to the possible social consequences of all this activity? We want the gifted child to have the best possible education. Where will our teacher-like notions of what constitutes the best education lead these youngsters? Are we really acting in the public interest? I submit that these are questions of the highest importance, and I should like to present some historical analysis plus a few controversial opinions.

Teachers have always been especially concerned about the welfare of their gifted students. We should be less than human if we were not, since we see in such children positive fruits of learning which delight us, whether we claim a large or small share in their growth. So much emphasis was and is put on the problems of teaching average and below-average children that many teachers began to feel that the gifted child was being neglected. That he really was may be open to question, but there is little doubt that many teachers feel that way.

MR. BERNSTEIN *(Alpha Omega 501) is a teacher and statistical consultant in Detroit, Mich., where he lives at 18307 Shaftsbury.*

The economic squeeze for trained talent in many professional fields provided a basis for public expression of these feelings by numerous eloquent spokesmen. The shortage of scientists, engineers, mathematicians, nurses, teachers (particularly college teachers), social workers, and others, buttressed by industrial demands for many types of skilled workers not requiring college training, gave eloquent testimony to our apparent failure to provide good education for the gifted. Information about Russian success in the sciences was heard at numerous educational conventions and in the newspapers two years before Sputnik I was announced. Many elements within the profession as well as significant public groups now accept such information as "proof" that we are failing the gifted child.

But wait! Do we detect in the chorus of voices many dissident elements, each with a special axe to grind? The science professors complain that our high-school courses are too easy, not stimulating the gifted, failing to produce continuing interest in science. The English professors complain that the gifted are not being stimulated to read fine literature, often are not even exposed to it. The language teacher complains that emphasis on family living crowds understanding the culture of other lands out of the training of the gifted child.

There is nothing contradictory about all this, my professional friends exclaim. After all, the objectives of a broad liberal education include all of these things. Perhaps so, but how do we judge their attainment? By the examinations we give? This is, in a sense, an empty kind of evaluation, since validity of the examinations is based upon the opinions of the teachers who wrote them. Indeed, using them to validate our studies of the

gifted is a neat professional trick—if we can get away with it. However, you can't fool all of the people all of the time. America's traditional distrust of the egghead will have us hoist by our own petard, if we cannot do better. We can, and we must, judge educational efforts by their primary social result—the kind of adults our students become.

Simple enough, my scientist friends say. If we produce more scientists with our program than we would have without it, it is a successful program. If we alleviate the professional shortages, we are successful. The program for revitalizing the teaching of high-school physics now being worked out at Massachusetts Institute of Technology under Professor Zacharias is frankly designed to that end. Have I picked out an unfair example? Perhaps, but how else does one get million dollar grants from the National Science Foundation? Indeed, how does one get the Congress of the United States to activate and finance a National Science Foundation?

Completing the Cycle

Now we have traveled full cycle, and find that our broad academic aims will be judged in narrow vocational terms. Let us imagine a scientific study to evaluate a special program to educate the gifted. We locate a control group of gifted children not being dosed with special educational medicine, and make our comparison when both groups attain adult status. (Such a study could be done today, since we have had numerous elite schools for years.) Does anyone doubt that the principal criteria for judging success will be percentage of college attendance and graduation, percentage of engineers, nurses, teachers, and other professionals graduated in each group? Will not the two most prominent criteria be the number of Ph.D.'s per 1,000 (all fields) and the number of research scientists per 1,000?

Well, what's wrong with that? The reader is now impatient with me at what appears to be elementary exposition. But we have actually arrived at the crucial point. I submit that these criteria are the wrong ones for our most gifted students. Despite the professional shortages, our most crying need is for political and economic leaders, not for scientists and college professors. Our failures in the international cold war have been termed, by most commentators, failures of leadership. They did not develop from shortages either of money or of scientific brainpower. The latter are connected with the military race only. Where are the political intellects who see the cold war in all of its dimensions and who will lead us in waging peace, rather than in a simple arms race?

We were faced yesterday with the spectacle of a Congress and a political and military administration composed largely of second-rate minds dictating policies which have resulted in mismanaged projects, resignations of scientists from high places, and questionable civil liberties practices. Today we see this same group belatedly calling our scientists to public hearings for advice. Every society, including democratic ones, is a power structure. We might as well face the unpleasant truth: In our power structure, college professors are people of limited means, some measure of social prestige but small public influence, and authority over no one but their students. Scientists are either college professors or the hired hands of industry and government. Well-paid hired hands, sometimes, but *not* policymakers. Nor would the picture be improved by placing today's scientists in positions of authority. While basically they have better minds than today's leaders, they have not been trained, either by schooling or experience, in the skills of political and economic authority. These are the art and science of making decisions, often with inadequate information; of taking calculated risks; of persuading and managing other people; and of making needed compromises. My professional colleagues will protest that these skills are the natural outcomes of a good liberal education. The proof of the pudding is in the eating, of course. Among our senators, congressmen, governors and other administrators, how many Phi Beta Kappa keys and Ph.D. degrees do you count?

C. Wright Mills, in *The Power Elite,* states:

> Once upon a time in the United States, men of affairs were also men of sensibility: to a considerable extent the elite of power and the elite of culture coincided, and where they did not coincide they often overlapped as circles. Within the compass of a knowledgeable and effective public, knowledge and power were in effective touch: and more than this, this public decided much that was decided.
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> "Nothing is more revealing," James Reston has written, "than to read the debate in the House of Representatives in the Eighteen Thirties on Greece's fight with Turkey for independence and the Greek-Turkish debate in the Congress of 1947. The first is dignified and eloquent, the argument marching from principle through illustration to conclusion; the second is a dreary garble of debating points, full of irrelevancies and bad history! . . .
>
> "For such men as now typically arrive in the higher political, economic, and military circles, the briefing and the memorandum seem to have

pretty well replaced not only the serious book, but the newspaper as well."[1]

We are concerned both with the welfare of the gifted child in terms of his personal happiness and with his contribution to society. In terms of his happiness, we do him no harm if he becomes a professor, since many accept the limitations of scholarly life and regard scholarship itself as a great reward. In terms of the needs of society, however, we must most urgently push the gifted student into the main channels that lead to political and economic power and authority. He must enter law or business administration or become a career soldier. Does this mean that learning science and reading fine literature are not an important part of his education? Indeed not. It depends on how we go about it. Studying science must result, not in a more intensive knowledge of physics or chemistry, but in a *working* appreciation of how scientists go about solving problems. Can you think of a more challenging scientific problem than the regaining by Congress of control over a budget which has become vast beyond ordinary comprehension? Fine literature interprets human nature and society. The well-read politician or executive would have his sensitivity sharpened by broad reading. No doubt educators of all philosophies subscribe to the foregoing. The test is not only one of objectives, but of results as well. Do we know how to train leaders just because we say we do? I would argue that we don't, as yet, know how. We must learn how.

What a dilemma! Highly talented youth come to us for vocational advice and encouragement. Their own security and society's professional shortages encourage entry into the scientific professions and teaching. Society's greatest need pleads that we channel some of the ablest into the more crowded fields of law, business, and politics, noted for insecurity, villification, and a host of other ills. The twentieth century is the paradox of history. Mankind has in its grasp the choice of great progress or great destruction. How education manages the paradox of the gifted child may well have a major bearing on the ultimate outcome.

[1] C. Wright Mills, *The Power Elite*. England: Oxford University Press, 1956. P. 350.

High-School Graduation: A Whistle Stop

► "High-school graduation is fast becoming just a whistle station on the educational journey of the majority of Wisconsin's youth," says J. Kenneth Little, University of Wisconsin director of institutional studies. "Almost four of five boys of high scholastic promise in Wisconsin go to college immediately after high school. Others will join them later, after military service, or after earning money to help pay their way.

"The failure of many girls of exceptional promise to go to college . . . reflect[s] an unfortunate cultural lag in appreciation of the human resource and worth of girls and women," Little adds.

The drive toward more education has strong occupational and utilitarian motives and going to college as a means to improve socio-economic status still dominates the purposes of most college-going youth. Little finds, however, that "children of parents who have attended college more frequently emphasize value of the personal satisfactions and enjoyment which comes from knowledge itself."

Little found, in his Wisconsin study, that many capable youth who want to go to college would take advantage of a loan plan which would permit them to borrow for their educational expenses and pay back on an installment plan after graduation. This suggests that the loan feature of the National Defense Education Act will be popular with an important class of students. At present, however, the average college student debt is only $20. The average family debt for durable goods is $3,000.

Beware Restrictions on College-Going!

► "American colleges and universities cannot limit their enrollments to the academically elite and fulfill their obligations in a democracy," President Virgil M. Hancher of the State University of Iowa told members of the American Council on Education in Chicago last month.

In our democracy we must believe "not only in the individual's right to an opportunity for food and clothing and shelter and health for himself and his family, but to an opportunity for the development of his powers to their highest potential," Hancher said. "To deny him this opportunity is as much an assault upon his individual worth and dignity as are poverty and degradation and slavery."

Students in the second echelon of ability "prevent a gap from existing, such as exists in England and France, between the educated elite and the indifferently educated masses. These people, together with our own elite, make possible the complex and astonishing political, social, and economic order which we have created in this country.

Hancher identified other challenges to today's educators as the need to prepare youth to live in a restless, dynamic, and rapidly changing society, and the need to deal with the "explosion of knowledge" that has brought to an end the day when a college graduate could feel that he was well educated in terms of available knowledge. Finally, Hancher called attention to the need for educators to interpret to the public the values, methods, standards, and practices of their profession.

The Behavioral Deviate in the Secondary School Culture

By WILLIAM C. KVARACEUS

THE major purpose and function of the school is to develop new and improved behavior or to modify and change old and undesirable ways of behaving for the betterment of self and society. In this sense, learning as a product must be conceived in terms of specified and expected behavorial changes or acquisitions of new and improved modes of adjustment in consequence of school attendance. . . .

The formal high-school curriculum provides planned and systematic experiences through which expected behaviors or modifications will take place. This is the visible curriculum of the high school. In most high schools this curriculum operates in the monotonous routine and ritual of lesson assigning, lesson reciting and hearing, and lesson marking. But there is also a second curriculum which is to be found in the culture of the school. This subliminal curriculum, like the hidden but major portion of the iceberg, is in a sense a natural extension of the visible and formal curriculum of the school. Though hidden, it may represent for behavior and misbehavior the more formidable and even more effective—if not hazardous—aspect of the school's program in developing real and significant changes in the behavior of high-school youth.

There is no such thing as "the culture" of the American public secondary school. A wide variety of cultures exist and can be found in different high schools and in different communities. The ways of life in the large high school in the big dirty city will differ substantially from the ways of living in the more homogeneous upper middle class models found in the clean and neat suburban school and these, in turn, will differ from the patterns visible in the smaller high schools now fast disappearing from the rural scene. Margaret Mead[1] has explored some of these significant variants in her Inglis Lecture, *The School in American Culture*. At the same time, it must be recognized that the structure of school society, not unlike the structure of the society outside of school, consists of a number of subgroups each with its own somewhat distinct cultural characteristics. In the high school these may cluster around class status of the family, college-going intentions, course elections, ethnic aspects of the neighboring community, etc.

Behavior, and, of course, misbehavior, frequently are only manifestations or reflections of the cultural imperatives of the school. The cultural imperatives of the secondary school are powerful and pervasive. They may and frequently do neutralize and even supersede the forces operating in the formal and planned experiences of the visible curriculum. . . .

Sex-Crossed Activities of the School

The American high school is unique in many ways when compared with many of its European counterparts. A point of greatest difference can frequently be found in the free-and-easy wheeling of boy-girl relationships, best symbolized by the insurance policy carried in the form of the steady date or the isolated couple at the school dance united in romantic embrace.

The sexiest spot in any American town today can be found in its high school. This is especially true in smaller communities and most visible in suburbia. This theme has been caught in the melodrama of *Peyton Place*, where even the high-school principal is hardly immune to the sexually oriented climate of his own institution, and eventually capitulates. The identical theme is burlesqued in a Grade B celluloid excretion of Hollywood, *High School Confidential*. In this

MR. KVARACEUS *(Iota 526) is professor of education, Boston University. This article is excerpted from a speech made at Syracuse University in July. The entire address is now available in a compilation published under the title* Frontiers in Secondary Education III *by the Syracuse University Press. (Kvaraceus was recently placed in charge of an NEA project aimed at the reduction of juvenile delinquency.)*

[1] Margaret Mead, *The School in American Culture*, Cambridge: Harvard University Press, 1951. p. 48.

caricature of the high school, seniors (maybe they were only sophomores) speak frequently and glibly of the stag and stud roles of the male "students." . . .

The fact that American youth have made so minor and so insignificant a contribution in the creative arts may be attributable somewhat to their exclusive preoccupation with sports and sex. It is frequently difficult to state where sport leaves off and where sex begins. A long litany of symbolic manifestations may be listed here, viz: football, the juke box, the coke bottle, rock-'n-roll, and the mass identification with Elvis Presley which still hangs over, as can be seen in the recent issuance of silver-plated dog tags with *his* serial number and blood type to be worn on the female wrist, ankle, or breast. Talcott Parsons[2] has suggested similar reasons why American youth have never shown any strong or rebellious movement in the political life of the nation in contrast with the youth of other nations. If our nation is derailed from the democratic tradition, it will be because grown boys or men prefer the comforts of the bath and the bed to the discomforts of the smelly marketplace, the slanderous political arena, and the bloody battlefields—as it was in Ilium, in ancient Athens, in Rome, and in Byzantium.

Delayed and Postponed Responsibility

. . . Nowhere is . . . listless play-acting more visible than in the so-called student governments in the high schools. Seldom are youth trusted to make their own decisions and to experience the learning that can come from making moral choices on their own. The direction and supervision exercised in student government make a mockery of the democratic processes. Neither does the high school appear effective in finding any honest or real work with which to preoccupy the fast-maturing adolescent. The result today can be seen in the young adult who is convinced of his low status. He is a nobody, a nothing. He suffers from the lack of any utility function (except that of serving the role of a perpetual scapegoat for the adult members of society who heap upon him all the debris of their own inadequacies.) There is no more unimportant member of society than the adolescent. He is the outraged personality of the twentieth century, as indicated by the eloquent testimony in the mounting rebellion visible in the delinquency trends of any large city. Herein is frequently reflected the aggressive inferiority of modern youth. The dysfunctioning curriculum of the secondary school coupled with compulsory school attendance is rapidly turning the American public high school into an adolescent ghetto. Let us inspect the compulsory nature of this relationship between school and adolescent.

Compulsory Nature of the Relationship

There are many captive students in American high schools. What proportion of its clientele would the secondary school lose if the compulsory school attendance laws were revoked and if the attendance officer were taken off the job?

In the educational mythology of compulsory secondary schooling, the public institutions have promised to educate every child of every parent. But for most pupils, as with Penrod, school has become a place of confinement envenomed by mathematics, to which we can now add science. *Current Population Reports* of the Department of Commerce indicate that in 1950 46.6 per cent of the population in the 21-24 age bracket had not bothered to complete high school. In other words, even with the present compulsory attendance laws, the high schools are losing about half their clientele.

Current estimates[3] indicate that there are about eight million youngsters of high-school age, of which one million have dropped out of school. Of this group, one-half of the 16-17 year olds are unemployed and two-thirds of the 14-15 year olds are also without jobs. These youngsters caught in the school-to-work vacuum are waiting for something to happen. Many of them, through delinquency, are making things happen. It is estimated that in 1965 some 1,600,000 boys and girls 14 to 17 years of age will be out of school and that one-half million of these will be unemployed. This exiled group represents a real threat to the future of our society. If the reactionaries in the Bestor camp have their way, this number, a mere half million, may represent a very minimal estimate of future unemployed youth who will have left school. It is interesting to note that during the past ten years the drop-out rate has been cut by only seven per cent and that during the past five years it has been cut a mere three per cent. These figures would indicate that the holding power of the present high-school program (graduating 60 of each 100 persons 17 years of age annually) has probably reached its peak—even with compulsory legislation.

[2] Talcott Parsons, "Age and Sex in the Social Structure of the United States," *Personality in Nature, Society, and Culture*, Clyde Kluckhohn and Henry A. Murray, editors. New York: Alfred A. Knopf, 1950. pp. 269-281.

[3] *Youth Employment and Juvenile Delinquency*, Report of the Judiciary Committee, United States Senate, made by its Subcommittee to Investigate Juvenile Delinquency, 84th Congress, 1st session, p. 7.

The mass drop-outs provide school personnel with some idea of the inner conflict of the adolescent in this minor decision with major consequences, "to quit or not to quit, the high school," once the mandatory attendance age has been reached. Studies of school-leavers and studies of delinquents reveal that the two samples are overlapping on many traits. There is little doubt but that the school drop-out annihilates the high school in this last gesture of retaliation and contempt for the agency in which he has endured much and has himself almost been destroyed.

Learning by Clock and Calendar

The tempo and rhythm of learning in the high schools is fast, brief, and staccato. The student studies by clock and calendar. Learning stops for frequent holiday and vacation periods. Entrance to school and withdrawal from school are based on birth certificates rather than on any measure of ability or achievement. Learning is always short-timed and truncated and operates in 50-minute periods in which teacher and pupil study to beat the clock. All of this is alien to a studentship and a scholarship which is continuous and permeating and which must race in the long arduous marathon rather than the 50-minute dash in a five-period day. Much of the pseudo-intellectualism of our day can be traced to the quickie nature of the school's learning-teaching process. . . .

The Cultural Surrogates of the School

. . . Teen-age behavior can be strongly influenced by any glamorous figure with whom adolescents so easily identify. But who wants to identify with the teacher? Who wants to be like you? This is a painful "mirror, mirror on the wall" self-inquiry that every teacher should undergo in searching out his own self-concept. If the general public and the teacher himself are disenchanted with the teacher's status and role, the high school will not be highly populated by influential or glamorous examples for imitation. Is it true that we are, as Phyllis McGinley portrays us in her cruel sonnet on the PTA, "listless mentors of the young," and are we who are hired to teach others all too often uninspired and uninspiring? Yet teaching conceived as changing the behavior of others can be an exciting, glamorous, even dangerous occupation as we work on the critical frontier of human influence. . . .

The Undetermined and Unspecified Goals

. . . School personnel and the lay community need to arrive at some consensus on those issues basic to our American way of life that will help describe the kinds of persons we want and will need in our fast-changing world. To arrive at some statement of desirable school outcomes we will need to know more about the kind of society we want now and in the future. How nationalistic or internationalistic should the future citizen of the United States and of the world be? How religious or non-religious? How competitive and how cooperative? How leisure and how work-oriented? How individualistic and how socialistic? Unless the school and community can look ahead with some clarity of goals in what is a rapidly changing and perhaps unpredictable world, secondary schools—goal-less and direction-less—can become educationally anachronistic. In transmitting the culture and heritage of the past, the high school may stand rooted in the past, but the high school must also face up to its full responsibility for improving the way of life of the future. . . .

Success in Academic Achievement

School failure is frequently a concomitant and forerunner of deviant behavior. . . .

. . . It is easy to understand how failure can be used to strike back at the teaching authority or to demolish the school by students whose neighborhood or peer group value system is contrary to that of the school or of the dominant society; it may not be so easy to understand how the upper middle class child can use failure as a powerful weapon to cut down his parents. When school success becomes a paramount issue to the parent, who selfishly draws his own brand of personal satisfaction from the achievement of his youngsters, academic failure can prove a subtle and satisfactory boomerang for any youngster. In fact, this is one of the few ways that many high-school adolescents have of getting back at their own offensive parents. . . .

Summary

. . . Knowledge of the cultural contingencies of behavior and misbehavior in the high school will enable the professional youth worker in school and community, together with the parent and the pupil, to plan cultural change. By changing the behavior of large masses of young people, the great American Secondary School of the Future may even be able to change and influence the culture of the community. If the secondary school fails to have any widespread effect on the behavior of the masses of youth, it will suffer the awful tragedy of being the most expensive irrelevancy of the mid-twentieth century.

Reaction from The Field—

The Educational Grab Bag

By WILLIAM H. FISHER and TOM CLARK

PUBLIC school educators oppose curriculum making by legislative fiat, yet they engage in their own brand of privilege seeking. Coordinators of special services have staked out neat little homesteads, often charging that their colleagues are "poachers and claim jumpers." As Cervantes put it, "Said the pot to the kettle, 'get away, blackface.' "

Operating under governmental pressure for physical fitness, the body-build boys and girls have had their inning recently. But during other periods coordinators of art, music, drama, journalism, safety education, etc., have held the privileged spot. Actually, a good case can be made for all the so-called "special services."

Weighted values in the curriculum are difficult to validate. No informed educator today claims that basic skills are all that matter. This is true irrespective of the temptation to give way to the attacks on the schools because of "too many frills and fads." Doubtless the critics would themselves become more disgruntled if their *own* children were deprived of such enriching curricular offerings as art and music.

When something is added to the curriculum, something else must be eliminated or diminished. Today there is, for example, an increasing demand that foreign language teaching begin in the elementary schools. Is this bad? Of course not. But where is the line to be drawn? When will the proliferation of special services come to an end?

A solution lies, of course, in analyzing the difficult but not hopeless problem of values and priorities. Is driver education as important as creative dramatics? We must approach the problem not only from the standpoint of what driver education can do for the pupil as an automobile driver and a citizen, but also from the viewpoint of how the time allotment for driver education will affect other subject fields—social studies, English, mathematics, science.

MR. John Q. Parent, caught up in the do-it-yourself movement, decides to build a boat in his basement. Contrary to newspaper reports, John Q. figures the size of his door, the amount of money he has to spend, and the time he may devote to the project. If his figures indicate that he can build that boat without sacrificing such essentials as food, clothing, and medicine, and if he knows that he can get the completed boat out of his basement without blasting his house foundations, he builds. (He has, of course, previously determined that there is a need for a boat —that it will be "good" for him and his family.)

Too frequently, it seems to us, educators have built educational boats to serve a restricted purpose without considering the total picture. Many of these educational boats are now dry-docked in school building basements far removed from a utilitarian lake. In fairness to educators, it must be added that the same John Q. Parent who built at home with foresight and planning is often to be found in the vanguard of those who favor "bigger and better" educational boats.

It is plain that the schools cannot do everything that needs to be done. They have had to take on responsibilities which more logically belong to other community agencies. This has been the case because too often these other agencies have been remiss in accepting their obligations. Either the schools would do the job or it would *not* be done.

With what appears to be a growing public demand that schools foster more of the *basic* curriculum, it becomes imperative that other community organizations take on more of the burdens—if the needs of young people are to be met. In the process the schools will have either to cut or eliminate some curricular offerings. There are alternatives, of course. We can lengthen the school day, the school week, or the school year, for example. Such alternatives sound drastic to educators used to "coasting along." But a sober reorganization of public school curricula is in order, and it would have been in order without the Sputniks.

H. G. Wells' suggestion that the future of the world involves a race between education and catastrophe has long since attained bromide status. But its truth becomes daily more apparent; and now races are developing within education itself. The winner of the curriculum race had better be soundly oriented in a philosophy that takes account of the larger problems that face mankind in this fearsome era.

MR. FISHER *(Alpha Zeta 630) is superintendent of instruction and* MR. CLARK *is director of instruction in the Las Vegas, New Mexico, city schools.*

Federal Educational Policy

A Washington observer warns that we must clarify federal educational policy before another wave of demands results in special-interest legislation and further agency expansion affecting the nation's education efforts.

By **WILLIAM G. LAND**

THE National Defense Education Act of 1958 has been heralded as the greatest step forward in federal educational policy since the Morrill Act of 1862, in that it puts the federal government squarely behind the support of education on a national basis. By the same token, it is also a dangerous piece of legislation, because it is a conglomerate of special pleading—a foot in the door which presages a rush of special interest pressures in the absence of any recognized consistency in federal educational policy. Such onslaughts on the federal treasury indicate a lessening of state, local, and private responsibility.

In a constitutional sense, there is no federal policy on education. In a practical sense, however, policy can be discerned by looking at the trend of federal educational activities. They are not new: twenty-seven years ago, in 1931, the National Advisory Committee on Education appointed by President Hoover reported that "few people are aware of the extent to which the federal government is engaged in educational activities." Since then, depression, war, and governmental expansion have enlarged these activities. Yet it is no wonder the people do not recognize how deeply the federal government is committed to the support and operation of education and training activities—when the government itself fails to keep track of them. There are reports and compilations, it is true, but no single agency knows in detail about the extent and effect of federal activities and all about the programs operating in, supporting, or bearing on the field of education.

Without a full knowledge and assessment of the facts, there can be no consistent national policy. Each federal agency goes its own way to attain its own ends. Furthermore, without the facts being made available in full array, our national educational organizations will continue to make their own facts—witness an NEA survey of teachers in dependents' schools overseas in 1957. Without consistency in the facts, it is meaningless to make comparisons and interpretations, as can be seen by the disparities in oft-quoted figures on federal programs and funds for education. Any serious effort to obtain information about the extent, the details of operation, or the costs of any federal program is beset with pitfalls: differences of definition, of organizational or operational situation, of chronology, of sources of data, and of summary interpretation. Also, financial data fall into several categories which make comparisons dangerous: authorizations, appropriations, allocations, expenditures, estimates, and the varying practices of different agencies. Not merely for the public but for planning and policy making within the government itself, one of the major problems is that of obtaining relevant, detailed, and consistent facts.

From a national point of view, education extends farther than is generally realized. Certainly anyone who thinks of education merely as pedagogy—as education was regarded when the precursor of the U. S. Office of Education was established in 1867—is due for a rude awakening. Today's federal activities relating to education involve not only schooling from kindergarten to university level, but also training for many purposes—rehabilitational, vocational, technical, and professional. At their top level, federal programs extend into basic and applied research in both the natural and social sciences, with attendant problems of institutional relationships and the support or training of personnel. The methods by which the federal government takes part in education and training are four: (1) giving direct and indirect support to individuals through fellowships, traineeships, scholarships, grants, loans, and employment; (2) supporting state, local, and institutional programs of schooling, training, and

MR. LAND *(Alpha Rho 253) is an independent research consultant in education in Washington, D. C.*

research; (3) providing auxiliary services to both public and private educational enterprises by making capital loans and distributing surplus property and commodities; and (4) operating education and training programs, particularly in the military, which parallel civilian school, college, and skilled-trades training. Any federal educational policy must therefore take into account the extent, expense, results, and implications of these activities, as well as the relationships of the federal government to state, local, and private efforts.

Public education is far more than public schooling: it encompasses all public policy with regard to the encouragement, support, or operation of any type of education or training activity whereby our youth and citizens may become a national resource—productive and creative as workers, home members, and participants in democracy.

As our national concept of education has widened over the years, so has federal legislation undergone changing objectives in relation to education. The federal grants made for education in the Northwest Territory and in newly formed states were for the support of education in general. Then, for nearly a century, federal legislation provided for particular types of agricultural, mechanical, and vocational training. The depression of the 1930's brought federal solutions to problems with which state and local governments could not cope, and wartime emergencies of both World Wars I and II gave rise to federal programs which still continue.

Federal Programs for 'General Welfare'

These programs have come into being not as educational measures but as general welfare measures. For instance, the Children's Bureau established in 1912 to safeguard the welfare of working minors is now only one of many federal agencies concerned with the welfare of children and youth. The need for skilled labor and for home food conservation during World War I brought on federal subsidy for vocational and home economics education. The School Lunch Program, which began as local utilization of surplus farm commodities during the depression, is still primarily an adjunct to federal agricultural price support programs. Today's loan programs for college student facilities, administered by the Housing and Home Finance Agency, stem from the community facilities programs of the Public Works Administration which was its forerunner. The initial provision for military training in land-grant colleges has been extended to all types of institutions and is an integral part of national defense policy. Federal research and development programs now support at least 60 per cent of the separately budgeted research activities of our universities and colleges. Thus it can be seen that, more and more, the tendency of federal participation is to regard education as a means to a greater end, to look for specific outcomes which will implement national and international policies, and to support or directly engage in those educational activities which will produce results benefiting the national welfare.

Clarify Before the Deluge

Against this background, the elementary and secondary schooling of the nation's children which has traditionally been the responsibility of the states can be regarded from the point of view of national policy not as an educational measure but as an activity for the general welfare. The widespread non-academic activities of the schools themselves in cementing community relationships, in extra-curricular emphases, and in personal and occupational guidance and counseling give support to this position. Furthermore, one needs only to look at state enactments and legislative proposals to see how readily the states adjust themselves to the promise of federal handouts. It is apparent that the more federal participation we have in the area of state and local education, the more federal policy will eventually control the objectives and activities of the public schools as affecting the general welfare. It is therefore highly important to clarify federal educational policy in its broadest sense before another wave of demands on the federal government results in special-interest legislation and in further federal agency expansion affecting the nation's education and training efforts.

Legally limited to an advisory role as national schoolmarm, the U. S. Office of Education has not been in position to exert strong leadership either on the public schools or on the policies and practices of other federal agencies. By statute it is empowered only "to collect statistics and facts showing the condition and progress of education in the several States and Territories, and to diffuse such information respecting [schools and teaching methods] as shall aid the people in the establishment and maintenance of efficient school systems and otherwise promote the cause of education throughout the country." Thus other federal agencies have set up operational or supporting programs. The federal-state-county cooperative agricultural extension service, for instance, has become an extensive program of adult education for rural economic and social welfare. The armed services operate vast in-service training

programs which in many respects parallel civilian vocational and skilled trades training. They also operate programs of off-duty and dependents' schooling. Professional or college training of federal employees and military personnel is now available through programs operated by some agencies. The National Science Foundation, in addition to its fellowships for advanced study, has a growing program of summer and academic year institutes for re-training school science teachers. The research offices of the various armed services, together with the National Institute of Mental Health, have been foremost in the operation and support of research in the area of educational psychology. For a consistent federal policy in education, it is necessary to discover these activities, keep track of them, and assess their effectiveness and their implications within the total picture of the education and training of those on whom America's productivity and creativeness depend.

It would be a mistake to regroup or reorganize present federal education and training activities on any large scale, or to attempt to bring them under the control of any one federal agency: to do so would produce only dissension, confusion, and waste of effort. It would also be unrealistic to insist that the area of public school education is the prime element to be considered in federal educational policy: it is patently only a fractional part of the whole. The basic problem underlying the evaluation of federal educational activities is to obtain all the facts as well as to insure their relevance for comparative consideration. The next problem is to utilize these facts so as to coordinate the programs of the various federal agencies and so to lay groundwork for a national educational policy. Finally, the facts are needed by the public in order that non-governmental organizations may make such interpretation and evaluation as the public interest may demand.

There are two things which can be done without detracting from the present interests of any federal agency: (1) It is time for Congress to amend the basic statute so that the U. S. Office of Education, as the time-honored source of data relating to education, may be empowered to "collect statistics and facts showing the condition and progress *and support* of education *and training* in the several States and Territories *and within the Federal Government* and to diffuse such information. . . ." (2) The President should create an independent, permanent Interdepartmental Committee on Education and Training to study the role of federal agencies in this field. It should consist of representatives of every federal department and independent office which operates or supports programs which are related to education and training at any level. The committee should also be provided with an adequate secretariat and the means of obtaining advice and counsel from non-governmental organizations and interested persons.

The first proposal will make possible the collection and correlation of the needed facts. The second will enable federal agencies to work together and will bring about a coordination of federal programs affecting education. Together they will provide a sound basis for the development and continuance of federal educational policy and for the direction of future legislation.

The text of an NEA resolution regarding criticism of education, approved by the Representative Assembly last summer, deserves wide attention. It follows:

"The National Education Association believes in and welcomes constructive criticism of education. It recognizes that growth and development of American schools and colleges throughout their history have come in response to honest criticism and community thinking.

"American public education is founded on the conviction that the public school is indispensable to national unity, common purpose, and equality of opportunity. Yet proposals are heard today that the function of the schools be reduced to that of promoting only intellectual knowledge and skills; that abilities in science and mathematics be valued over all others; and that secondary education be limited to an elite. These proposals are inconsistent with the American tradition, which is to develop the full capacities of all the children of all the people, including those of highest academic talent.

"Such proposals are frequently accompanied by unfounded generalizations about the quality of public school performance and teacher education. Comparisons have been made between American and foreign students and educational systems, without considering the purposes which education serves in the respective societies. Attempts have been made to undermine public confidence in the profession of education, yet the hope for continued improvement of American education rests in large measure on the dedicated efforts of professional educators.

"The National Education Association condemns such misrepresentations and vilification, and at a time when the very foundations of American public education are being challenged, reaffirms its faith in the public school as an essential instrument of national unity, common purpose, and equality of opportunity."

Keeping Abreast in Education

What's Happened to Our High Schools?

► Publication of *What's Happened to Our High Schools?* was announced by the Public Affairs Press as the November KAPPAN went to press. This book, written by John Francis Latimer, assistant dean of faculties and professor of classics at George Washington University, has been described by the Denver *Post* as a "monumental historical and statistical analysis of the development of the high-school curriculum, from 1867 to now—from thirteen subject courses, mostly classical and scientific, to a diverse 141 in 1949, and more since then." Other reviewers describe the book as "very refreshing in its absence of excessive negative criticism of our schools," and "important for all citizens who wish to get an accurate description and analysis of our high schools of today and how they got that way."

Age of Adolescence for CPEA

► For any administrator seeking better understanding of his role, the latest report of the AASA Committee for the Advancement of School Administration is worthwhile. It is *Studies in School Administration,* a report on the Cooperative Program in Educational Administration written by the committee chairman, Hollis A. Moore, Jr.

The CPEA, now nearly twelve years old, has already had a tremendous impact upon school administration as a profession. The story of "how it happened" is told briefly and intelligently in the opening pages, but of more importance are the chapters on "The Job of Administering Schools," "Administrators for the Future," "In-Service Help for Today," "Relationship of School to Community," "Organization for Efficiency," "School Board Functions," and a final summary chapter. These chapters end with annotated bibliographies of CPEA studies which many school men will want to examine, although not all of them are readily available.

The Kellogg-supported CPEA may not go down in history as comparable in its final results with the Flexner report in medicine or the Gies report in dentistry. As Moore points out, there is no exact parallel. But two results are alone sufficient to justify the project: It has focused attention on the need to professionalize school administration. It has shown again and again that professional training cannot be adequate with the sorry budgetary appropriations and limited staff at the disposal of many preparatory institutions.

The 'Why' of High School Problems

► "When I was in high school only about 7 per cent of the young people in this country of high-school age attended high school. Now more than 75 per cent . . . are in high school. I was a city superintendent of schools in the 1920's and early 1930's when a great and unprecedented upsurge in high-school enrollment occurred. In my high-school days only the academically talented or inclined young people were in high school. Correspondingly, the subjects or courses offered were relatively few in number and they were all academic and college preparatory.

"But when the great avalanche of youth claimed a chance in the high schools there was a veritable tug-of-war to determine whether they should all be put through the same traditional academic mold or whether the schools should recognize both the great span of national differences among the students and the rapidly growing diversification of occupational life."

—John W. Studebaker, *chairman,* Editorial Board, *Scholastic Magazines,* in "Criticism? Let It Come!", September 19, 1958, *Scholastic Teacher.*

Wilson Fellowships for Recruitment

► Over 1,000 of the nation's most promising college graduates are continuing their education this fall at eighty-five U. S. and Canadian graduate schools under Woodrow Wilson National Fellowships provided by the Ford Foundation, which has granted $2,700,000 for a five-year period. In addition to tuition, awards amount to $1,400. Men received 750 of the fellowships this year, women 330.

The top ten graduate schools selected by the students are Harvard, Columbia, Yale, University of California at Berkeley, University of Chicago, Princeton, University of Wisconsin, University of Michigan, Radcliffe, and Stanford.

A distinctive feature of this college-teacher recruitment program is that any college faculty member may nominate any eligible student.

New Foundation headquarters have been opened at 32 Nassau Street, Princeton, N. J.

'Atomic Age Physics' on TV

► Some 300 colleges and universities in the U. S. are now offering, for college credit, the "Atomic Age Physics" course being conducted this year on TV by Dr. Harvey E. White, professor of physics at the University of California, Berkeley.

Very Little Research in Teaching

► "Very little effective research on teaching is being done, and only a very few schools are attempting it," says Robert S. Fox, director of the University of Michigan's University School. Fox chalked up 10,000 miles in visiting laboratory schools while on sabbatical leave this year. He lists three reasons why so little effective research on teaching is being done:

"1. Schools have traditionally performed other functions and have staffs accustomed to work in one way.

"2. Research requires some important skills and, in general, teachers and administrators haven't been trained in research skills.

"3. Providing observation opportunities for student teachers plus involvement in other teaching and committee work have put such pressure on the lab school staff that they don't have time for research."

Fox thinks these difficulties could be overcome by providing for teams headed by trained researchers who could work with the lab school teacher on problems of gathering and analyzing data.

Regarding the function of the laboratory school, Fox says, "I found in my tour an almost universal acceptance of the idea that the function should change from student teaching to emphasis on research and experimentation. There's a very definite trend in thinking among college administrators and people in teacher education that student teaching can be performed more effectively in the field than in an expensive lab school facility."

Fox found the most careful analysis of the research problem being done at Ohio State's University School. Ohio is creating a new department for school experimentation and research, he notes.

How Essential Is School Construction?

► Like other magazines traditionally interested in the schools, *Parents' Magazine* is participating actively in "The Great Debate." The October issue is a special one titled "U. S. Schools, A Report on the Progress and Problems of Education." The editors advocate a three-pronged attack on the school construction problem ignored by the 85th Congress. This attack must involve stronger local effort, increased state aid, and another try for federal aid. "*Parents' Magazine* believes that Federal funds for school construction are at least as essential as Federal aid for roads, hospitals and mental institutions for which the U. S. Government appropriates several billion dollars annually." The Rockefeller Report is quoted in support of this stand.

* * *

"I am inclined to think that some day we will not stop compulsory education at the age of fourteen but will compel every citizen throughout life to attend a school of information once a week."

—*Franklin D. Roosevelt*, 1929

Russian Language Increasingly Popular

► Reports of the increasing popularity of the Russian language as a subject for college study come in from various sources.

Russian, with a 300 per cent gain, paced a general increase in enrollment of eight foreign languages at the University of Illinois this semester. Many graduate students, especially in science, were attracted to a new series of Russian reading courses. Other new courses include "Modern Russian Literature" and "Russian Literature in Translation."

Michigan State University reports that Russian is two to four times as popular as it was last year. Heads of the MSU foreign language, geography, and history departments report that enrollments in courses pertaining to the Soviet Union are much higher than last fall. Beginning Russian enrolled sixty-seven, compared with eighteen last year.

But There May Soon Be a Robot

► Linguists have long been fascinated by the idea of a machine capable of performing a very demanding and time-consuming task—the translation of one language into another. Now the development of electronic "brains," intricate computing machines capable of solving highly complex mathematical problems with lightning speed, has brought their dream definitely within the realm of possibility. In fact, translating machines which do a very rough and uncertain job have already been developed.

One approach is being made at Wayne State University, where Slavic language experts and electronic computer specialists are seeking a method of translating Russian into English. Co-directors Harry Josselson and Arvid Jacobson agree that development of the machine may take more than ten or fifteen years.

Says Jacobson: "This is a complex situation for which we do not expect to produce a perfect system. However, in three years we hope to have reached our goals in a restricted subject area."

How To Identify Disturbed Children Early

► *A Process for Early Identification of Emotionally Disturbed Children* has been published by the California State Department of Education. The bulletin, available through the superintendent's office in Sacramento, was prepared by Eli M. Bower, education research project co-ordinator, Bureau of Special Education, California State Department of Education.

* * *

"We need twenty-two more medical schools just to take care of the predicted rise in our population by 1975," says Dr. Vernon W. Lippard, dean of the Yale Medical School. This is a bare minimum to maintain our present physician-population ratio. It counts on foreign medical schools to supply one of every nine doctors licensed here each year.

The Schools Are in Politics Now

► Writing in the October issue of *The Nation's Schools,* H. Thomas James of Stanford University urges school men to face the fact that schools are in politics. Two outworn concepts, he says, are contributing to the lag in adapting schools to social change. They are the idea that the educational enterprise must be kept separate from other services of government ("keep the schools out of politics") and the concept of localism, often expressed in the insistence of the "right" of local school districts to manage their school affairs without interference from the state or federal governments.

Actually, decisions about education are being made more and more at the state and national level, and they are being made on a political basis. The net result for schools is less local control.

James offers three adjustments to meet the modern trend, among them timely and effective participation by educators in the budget making process that today is controlled by city managers and state budget directors.

What's Right in American Schools?

► *The School Executive* for October accents the positive in dealing with the status of American schools. In a refreshing report titled "What's Right in American Schools," the editors relay suggestions from nearly a hundred superintendents with regard to practices "of which they are proud and would like to tell the whole world about." The report is divided into two sections, the first telling about new methods of organizing and operating the schools, getting the school story across to the community, etc. The second discusses promising personnel practices, successful recruiting techniques, planning merit schedules, improving the curriculum with staff help, using citizens as teachers, etc.

First Russian Exchange Students

► Twenty American graduate students are now attending Moscow and Leningrad Universities in accordance with a section of the general inter-cultural exchange agreement reached between the U. S. and the U. S. S. R. last January. American planning for the exchange was made by the Inter-University Committee on Travel Grants in New York City at the request of the Department of State. The twenty U. S. Students represent sixteen different states and are all advanced Ph. D. candidates at U. S. institutions offering this degree in the social sciences or humanities with specialization on the Soviet Union.

NSBA To Meet in San Francisco

► The 1959 national convention of the National School Boards Association, to be held in San Francisco from January 25 to 28, will develop the theme, "Improving Education—A Free People's Responsibility." Featured speaker is again Dr. James B. Conant, whose address before the 1958 convention in Miami is condensed in this issue of the KAPPAN.

The Official View on Foreign Languages

► The American school system should provide a ten-year program of foreign language study beginning with the third grade and extending through high school.

This is among the proposals advanced in a 166-page report by foreign language specialists meeting this summer under sponsorship of the U. S. Office of Education to explore ways to improve the teaching of foreign language in high school.

The report also notes that: (1) Most students study a foreign language only two years, whereas learning another tongue, like learning to play a musical instrument, requires long and continuous practice. (2) Russian is now taught in about a dozen American high schools, but many others plan to add courses soon. (3) Most American high schools now offer only Spanish, French, German, and a scattering of other West European languages. (4) It is important to learn to speak a language before reading and writing it. (5) Language laboratory facilities should be as much a part of the high-school equipment as home economics facilities, the science laboratory, and the typing room. (6) Language libraries, featuring foreign publications and tape recordings, are also needed.

An Individual View—Same Subject

► Here's a different point of view:

What the world needs more than additional study of foreign languages is instruction in an international, universal language which can be understood by all the peoples of this earth, says Mario Pei.

Dr. Pei reminds us that there are 2,796 languages; one hundred of these are spoken by groups of one million to five hundred million. What can learning one or two or a dozen additional languages achieve against these facts of life?

Dr. Pei does not care what language is chosen for his global medium of communication—it can be English, Russian, Esperato, or Interlingua. "All languages are easy to those who learn them from childhood. The important thing is to make a universal language compulsory in all schools. That will produce a bi-lingual world in thirty years. This may not bring about world peace, but should remove many of the rough spots in international relations which arise from lack of understanding."

Dr. Pei is author of these views in *One Language for the World,* Devin-Adair, 291 pp., $5.

* * *

"When we are told that there is a shortage of technicians in American life, a shortage of engineers, I say, 'Of course there is, but there is also a shortage of good doctors, good psychologists, good psychiatrists, good social workers, and good teachers, and there is, I am sad to say, a shortage of good political leaders. In short, we are long on shortages in these United States."

—*Max Lerner,* in "American Civilization: Goals and Values," Oct., 1958, *NEA Journal*

This Superintendent Wasn't Chivvied

► *News Item,* Oct. 18—City School Superintendent Omer Carmichael of Louisville, Ky., gave a masked teen-age gunman a wrestling lesson yesterday. The 65-year-old superintendent tackled and subdued a fleeing 17-year-old youth accused of holding a Manly Junior High School Music class at pistol point and stealing the teacher's pocketbook. The young gunman could only say, "I'm chicken." Superintendent Carmichael's wife said, "Omer had better luck than sense today."

(Carmichael is the same superintendent who received a citation from President Eisenhower for his early and efficient work in desegregating Louisville's schools. He has been assisting the Phi Delta Kappa Commission on Problems of School Desegregation during the past year as it developed a handbook for the use of school men faced with the problems of desegregation. The book will be available without charge from PDK headquarters in December.)

AFT Now Entirely Desegregated

► The American Federation of Teachers is now a completely desegregated AFL-CIO International, according to the September *American Teacher.*

Delegates to the AFT's 42nd annual convention took the final step by voting to sustain an earlier decision to void the charter of the Chattanooga-Hamilton County, Tennessee, local which clung to the old order in the South. The AFT has pioneered for integration in the schools for more than ten years. It filed desegregation-supporting briefs in the Supreme Court prior to the latter's famous decision.

Some College Forecasts

► President Nathan Pusey of Harvard, addressing the American Council on Education at Chicago in October, called attention to a number of estimates made by Harvard economist Seymour Harris: Four million of the six million college students in 1970 will be in publicly supported institutions. The charge for tuition in private institutions may well rise to an average of $1,350, while that of public ones may go from $150 to at least $500. The annual cost of higher education will rise from the present three billion to a minimum of nine billion dollars.

Comments of Virginia Government

► An anonymous correspondent asks if KAPPAN readers have heard the now classic remark about Virginia government: "Virginia government is of the Byrds, by the Byrds, and for the Byrds."

* * *

When we were brought up there was one extreme —we were kept in the attic, while our parents lived in the best rooms; now it's just the other way—the parents are in the washhouse, while the children are in the best rooms. Parents now are not expected to live at all, but to exist for their children.

—*Natalie to Kitty in Tolstoy's* Anna Karenina, 1875-77.

S R BONDS

Dear Editor:

I have just read the October issue of the PHI DELTA KAPPAN from cover to cover, an experience a few years ago I would never have thought desirable or even possible. You are doing a magnificent job and this last issue is one of the very best, in my opinion. The article by Finn is outstanding and the kind of research that needed to be done with all the barbed arrows that are being shot around by various people. Incidentally, don't let them discourage you from occasionally putting in a little bit of fiction when it has a point, as the story last year certainly did. Best of luck and keep it up.—FRANCIS V. LLOYD, JR. (Iota 739—Life Member #91), *superintendent,* Clayton, Missouri, Schools.

Dear Editor:

I must deplore the inside back cover of the October KAPPAN wherein Professor Finn delivers a Mickey of the same name. Finn's sick joke humor is unworthy of publication. However strongly Phi Delta Kappans may disagree with the critics of education, there is no justification for such vulgarity.—HOBERT W. BURNS (Delta 2138), *assistant professor of education,* Rutgers.

Dear Editor:

I should like to quote from John E. Harmon's article in the June KAPPAN:

". . . But the projection of this trend into the future illustrates the spectacular increase in the proportion of our young people going to college experienced over the past fifty years. This was accomplished under our traditional system of educational responsibility shared by individuals and state governments.

"Would we have done better if the federal government had taken part? . . ."

Mr. Harmon conveniently forgets P. L.'s 346, 550, etc., without which large numbers of Americans would never have had the opportunity to enroll in and graduate from college.—HANS HIRSCHHORN (Alpha Psi 544), Erie County Technical Institute, Buffalo, N. Y.

Dear Editor:

The PHI DELTA KAPPAN review of *Education for the Gifted* reminds me that many complainers are writing and talking about neglect of the gifted but they refer to the *intellectually* gifted only and, in their ignorance and enthusiasm, overlook that unusual talent is of many types. May I urge all Phi Delta Kappans to help the many uninformed laymen in this matter? Letters to local newspapers will do this. In our part of the world at least, letters to the editor are read by many. . . . A. R. MEAD (Beta Xi 44), Bureau of Educational Research, College of Education, University of Florida, Gainesville.

House of Lords

LEFT *to* RIGHT—*Gordon I. Swanson, U. of Minn., Recording Sec'y; Charles R. Foster, U. of Florida, 1st Vice Pres.; John C. Whinnery, Supt. Montebello, Calif., Schools, Pres.; A. G. Clark, Asst. Supt. Co. Schools, Pittsburgh, 2nd. Vice Pres.; Russel Merkel, Indiana Central College, Comptroller.*

House of Commons

LEFT *to* RIGHT—*Gayle B. Childs, Dist. IV; Benjamin J. Novak, Dist. VI; Robert Strickler, Dist. III; Arthur T. Tain, Dist. II; Homer Boroughs, Jr., Dist. I. (Not present, Guy C. Mitchell, Dist. VII.)*

RIGHT—*Jack Jones, business manager, demonstrates new addressing equipment.* BELOW—*President John draws late-day rejuvenation.* BOTTOM—*Top brass sign new chapter charters.*

PDK Board and District Representatives at Work

The five-man Phi Delta Kappa Board of Directors and seven District Representatives meet for several days each August at the new international headquarters in Bloomington, Indiana. These photographs were taken at the 1958 meeting.

The next board meeting will be held from February 13 through 16 at Atlantic City before and during the AASA convention. Members are invited to visit and to attend the general luncheon Monday, February 16, at which Dean Irving R. Melbo, University of Southern California, will speak.

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Publication of the *Research Studies in Education* series is expected to be a continuing activity of Phi Delta Kappa. The 1958 edition is now in process of compilation. Its publication is dependent upon sales of the 1953, 1954, 1955, 1956, and 1957 editions. Copies of the earlier editions are also available at the above prices.